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<120> Generation of Antigen-Specific T Suppressor Cells For Treatment of Rejection

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<141> 2000-12-21

<150> PCT/US00/16594

<151> 2000-06-15

<160> 381

<170> PatentIn version 3.1

<210> 1

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 1

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Cys Met Thr Ala Leu Thr
1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr
20 25 30

Arg Pro Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His Phe Phe Asn
35 40 45

Gly Thr Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr Asn Gln Glu
50 55 60

Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr
65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu
85 90 95

Leu Glu Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr
100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Glu Pro Lys Val
115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu
130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp

145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser
195 200 205

Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His
245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser
260 265

<210> 2

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 2

Gly Asp Thr Arg Pro Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr
20 25 30

Asn Gln Glu Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Leu Leu Glu Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Ala Val Glu Ser Phe Thr Val Gln Arg Arg Val Glu
85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser
130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu
165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser
180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu
195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln
210 215 220

Lys Gly His Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser
225 230 235

<210> 3

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 3

Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr Asn Gln Glu Glu Ser
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala
65 70 75 80

Val

<210> 4

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 4

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Cys Met Thr Ala Leu Thr
1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr
20 25 30

Arg Pro Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His Phe Phe Asn
35 40 45

Gly Thr Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr Asn Gln Glu
50 55 60

Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr
65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile
85 90 95

Leu Glu Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr
100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Glu Pro Lys Val
115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu
130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp
145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser
195 200 205

Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His
245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser
260 265

<210> 5

<211> 225

<212> PRT

<213> Human HLA-DRB

<400> 5

Gly Asp Thr Arg Pro Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr
20 25 30

Asn Gln Glu Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Leu Leu Glu Gln Arg Arg Ala Ala Val Asp Asn Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val Glu
85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser
130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu
165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser
180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu
195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln
210 215 220

Lys
225

<210> 6

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 6

Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr Asn Gln Glu Glu Ser
20 25 30

Val Arg Phe Asp Ser Asp Val Arg Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 7

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 7

Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr Asn Gln Glu Glu Ser
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 8

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 8

Arg Phe Leu Trp Glu Leu Lys Phe Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr Asn Gln Glu Glu Ser
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 9

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 9

Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 10

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 10

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His
20 25 30

Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg

35

40

45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His
85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser
130 135 140

Thr Gly Leu Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu
165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser
180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu
195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln
210 215 220

Lys Gly His Ser Gly Leu Gln Pro Arg Gly Phe Leu Ser
225 230 235

<210> 11

<211> 87

<212> PRT

<213> Human HLA-DRB

<400> 11

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln
85

<210> 12

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 12

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Glu Arg Tyr Phe His
20 25 30

Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His
85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser
130 135 140

Thr Gly Leu Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met

145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu
165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser
180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu
195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln
210 215 220

Lys Gly His Ser Gly Leu Gln Pro Arg Gly Phe Leu Ser
225 230 235

<210> 13

<211> 100

<212> PRT

<213> Human HLA-DRB

<400> 13

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Glu Arg Tyr Phe His
20 25 30

Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His
85 90 95

Pro Lys Val Thr
100

<210> 14

<211> 85

<212> PRT

<213> Human HLA-DRB

<400> 14

Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg
1 5 10 15

Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Asn Val Arg Phe Asp
20 25 30

Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro Asp
35 40 45

Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys Arg Gly
50 55 60

Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val Val Glu Ser Phe
65 70 75 80

Thr Val Gln Arg Arg
85

<210> 15

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 15

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Ser
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 16

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 16

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 17

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 17

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 18

<211> 86

<212> PRT

<213> Human HLA-DRB

<400> 18

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly

35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln
50 55 60

Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val Val
65 70 75 80

Glu Ser Phe Thr Val Gln
85

<210> 19

<211> 102

<212> PRT

<213> Human HLA-DRB

<400> 19

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His
20 25 30

Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His
85 90 95

Pro Lys Val Thr Val Tyr
100

<210> 20

<211> 102

<212> PRT

<213> Human HLA-DRB

<400> 20

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His
20 25 30

Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His
85 90 95

Pro Lys Val Thr Val Tyr
100

<210> 21

<211> 86

<212> PRT

<213> Human HLA-DRB

<400> 21

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg
1 5 10 15

Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Arg Glu Glu Asn Val Arg
20 25 30

Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg
35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys
50 55 60

Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val Gly Glu
65 70 75 80

Ser Phe Thr Val Gln Arg
85

<210> 22

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 22

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His
 20 25 30

Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Ala Ala Glu His Trp Asn Ser Gln
 50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His
 85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His
 100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu
 115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser
 130 135 140

Thr Gly Leu Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu
165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser
180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu
195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln
210 215 220

Lys Gly His Ser Gly Leu Gln Pro Arg Gly Phe Leu Ser
225 230 235

<210> 23

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 23

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu

50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 24

<211> 80

<212> PRT

<213> Human HLA-DRB

<400> 24

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg
1 5 10 15

Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn Val Arg
20 25 30

Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg
35 40 45

Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys
50 55 60

Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val Val Glu
65 70 75 80

<210> 25

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 25

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 26

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 26

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Arg Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 27

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 27

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu

35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Arg Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 28

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 28

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Trp Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val

<210> 29

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 29

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 30

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<213> Human HLA-DRB

<400> 30

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Arg Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 31

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 31

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr

1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 32

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 32

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Ala
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg
85

<210> 33

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 33

Met Val Cys Leu Lys Phe Pro Gly Gly Ser Cys Met Ala Ala Leu Thr
1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr
20 25 30

Arg Pro Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn
35 40 45

Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu
50 55 60

Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr
65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu
85 90 95

Leu Glu Gln Lys Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr
100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Tyr Pro Glu Val
115 120 125

Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His Asn Leu Leu
130 135 140

Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp
145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser Thr Gly Leu
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser
195 200 205

Leu Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His
245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser

260

265

<210> 34

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 34

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 35

<211> 264

<212> PRT

<213> Human HLA-DRB

<400> 35

Cys Leu Lys Phe Pro Gly Gly Ser Cys Met Ala Ala Leu Thr Val Thr
1 5 10 15

Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr Arg Pro
20 25 30

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr
35 40 45

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr
50 55 60

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
65 70 75 80

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
85 90 95

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
100 105 110

Val Glu Ser Phe Thr Val Gln Arg Arg Val Tyr Pro Glu Val Thr Val
115 120 125

Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His Asn Leu Leu Val Cys
130 135 140

Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp Phe Arg
145 150 155 160

Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser Thr Gly Leu Ile Gln
165 170 175

Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr Val Pro
180 185 190

Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser Leu Thr
195 200 205

Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala Gln Ser
210 215 220

Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu Phe Leu
225 230 235 240

Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His Ser Gly
245 250 255

Leu Gln Pro Thr Gly Phe Leu Ser
260

<210> 36

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 36

Gly Asp Thr Arg Pro Arg Phe Leu Glu Gln Val Lys His Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr

20 25 30

His Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Leu Leu Glu Gln Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val Tyr
85 90 95

Pro Glu Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser
130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu
165 170 175

His Pro Ser Leu Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser
180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu
195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln
210 215 220

Lys Gly His Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser
225 230 235

<210> 37

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 37

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 38

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 38

Met Val Cys Leu Lys Phe Pro Gly Gly Ser Cys Met Ala Ala Leu Thr
1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr
20 25 30

Arg Pro Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn
35 40 45

Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu
50 55 60

Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr
65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu
85 90 95

Leu Glu Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr
100 105 110

Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val Tyr Pro Glu Val
115 120 125

Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His Asn Leu Leu

130

135

140

Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp
145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser Thr Gly Leu
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser
195 200 205

Leu Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His
245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser
260 265

<210> 39

<211> 94

<212> PRT

<213> Human HLA-DRB

<400> 39

Gly Asp Thr Arg Pro Arg Phe Leu Glu Gln Val Lys His Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr
20 25 30

His Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Leu Leu Glu Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg
85 90

<210> 40

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 40

Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln
50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly
65 70 75 80

Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 41

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 41

Gly Asp Thr Arg Pro Arg Phe Leu Glu Gln Val Lys His Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr
20 25 30

His Gln Glu Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Leu Leu Glu Gln Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg

65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val Tyr
 85 90 95

Pro Glu Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His
 100 105 110

Asn Leu Leu Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu
 115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser
 130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met
 145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu
 165 170 175

His Pro Ser Leu Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser
 180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu
 195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln
 210 215 220

Lys Gly His Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser
 225 230 235

<210> 42

<211> 94

<212> PRT

<213> Human HLA-DRB

<400> 42

Gly Asp Thr Arg Pro Arg Phe Leu Glu Gln Val Lys His Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr
20 25 30

His Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Leu Leu Glu Gln Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg
85 90

<210> 43

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 43

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg
85

<210> 44

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 44

Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly

35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln
50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly
65 70 75 80

Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 45

<211> 74

<212> PRT

<213> Human HLA-DRB

<400> 45

Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg
1 5 10 15

Tyr Phe Tyr His Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly
20 25 30

Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro Ser Ala Glu Tyr Trp
35 40 45

Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys Arg Ala Ala Val Asp Thr
50 55 60

Tyr Cys Arg His Asn Tyr Gly Val Gly Glu
65 70

<210> 46

<211> 84

<212> PRT

<213> Human HLA-DRB

<400> 46

Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln
50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val
65 70 75 80

Glu Ser Phe Thr

<210> 47

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 47

Met Val Cys Leu Lys Phe Pro Gly Gly Ser Cys Met Ala Ala Leu Thr
1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr
20 25 30

Arg Pro Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn
35 40 45

Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu
50 55 60

Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr
65 70 75 80

Glu Leu Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu
85 90 95

Leu Glu Gln Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr
100 105 110

Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val Tyr Pro Glu Val
115 120 125

Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His Asn Leu Leu
130 135 140

Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp
145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser Thr Gly Leu
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser
195 200 205

Leu Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His
245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser
260 265

<210> 48

<211> 87

<212> PRT

<213> Human HLA-DRB

<400> 48

Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp
50 55 60

Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val
65 70 75 80

Glu Ser Phe Thr Val Gln Arg
85

<210> 49

<211> 78

<212> PRT

<213> Human HLA-DRB

<400> 49

His Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp
1 5 10 15

Arg Tyr Phe Tyr His Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val
20 25 30

Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr
35 40 45

Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys Arg Ala Ala Val Asp
50 55 60

Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu Ser Phe Thr

65 70 75

<210> 50

<211> 74

<212> PRT

<213> Human HLA-DRB

<400> 50

Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg
1 5 10 15

Tyr Phe Tyr His Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly
20 25 30

Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp
35 40 45

Asn Ser Gln Lys Asp Ile Leu Glu Asp Glu Arg Ala Ala Val Asp Thr
50 55 60

Tyr Cys Arg His Asn Tyr Gly Val Gly Glu
65 70

<210> 51

<211> 82

<212> PRT

<213> Human HLA-DRB

<400> 51

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu

<210> 52

<211> 73

<212> PRT

<213> Human HLA-DRB

<400> 52

Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg
1 5 10 15

Tyr Phe Tyr His Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly
20 25 30

Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Gln Tyr Trp
35 40 45

Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys Arg Ala Ala Val Asp Thr
50 55 60

Tyr Cys Arg His Asn Tyr Gly Val Gly
65 70

<210> 53

<211> 73

<212> PRT

<213> Human HLA-DRB

<400> 53

Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg
1 5 10 15

Tyr Phe Tyr His Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly
20 25 30

Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro Ser Ala Glu Tyr Trp
35 40 45

Asn Ser Gln Lys Asp Leu Leu Glu Gln Arg Arg Ala Glu Val Asp Thr
50 55 60

Tyr Cys Arg His Asn Tyr Gly Val Gly
65 70

<210> 54

<211> 78

<212> PRT

<213> Human HLA-DRB

<400> 54

Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg
1 5 10 15

Tyr Phe Tyr His Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly
20 25 30

Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp
35 40 45

Asn Ser Gln Lys Asp Ile Leu Glu Asp Arg Arg Ala Leu Val Asp Thr
50 55 60

Tyr Cys Arg His Asn Tyr Gly Val Val Glu Ser Phe Thr Val
65 70 75

<210> 55

<211> 79

<212> PRT

<213> Human HLA-DRB

<400> 55

His Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp
1 5 10 15

Arg Tyr Phe Tyr His Gln Glu Glu Ser Val Arg Phe Asp Ser Asp Val
20 25 30

Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr
35 40 45

Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Arg Arg Ala Ala Val Asp
50 55 60

Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val
65 70 75

<210> 56

<211> 73

<212> PRT

<213> Human HLA-DRB

<400> 56

Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg
1 5 10 15

Tyr Phe Tyr His Gln Glu Glu Ser Val Arg Phe Asp Ser Asp Val Gly
20 25 30

Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp
35 40 45

Asn Ser Gln Lys Asp Leu Leu Glu Gln Arg Arg Ala Glu Val Asp Thr
50 55 60

Tyr Cys Arg His Asn Tyr Gly Val Gly

65 70

<210> 57

<211> 83

<212> PRT

<213> Human HLA-DRB

<400> 57

Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val
1 5 10 15

Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Ser Val Arg Phe
20 25 30

Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro
35 40 45

Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys Arg
50 55 60

Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu Ser
65 70 75 80

Phe Thr Val

<210> 58

<211> 82

<212> PRT

<213> Human HLA-DRB

<400> 58

Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val
1 5 10 15

Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr Val Arg Phe
20 25 30

Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro
35 40 45

Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys Arg
50 55 60

Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val Val Glu Ser
65 70 75 80

Phe Thr

<210> 59

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 59

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Arg Phe Thr Val Gln Arg Arg
85

<210> 60

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 60

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu

50 55 60

Arg Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 61

<211> 80

<212> PRT

<213> Human HLA-DRB

<400> 61

Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr Glu Arg
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr Val Arg
20 25 30

Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg
35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp Arg
50 55 60

Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu
65 70 75 80

<210> 62

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 62

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
 35 40 45

Gly Arg Pro Asp Thr Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
 50 55 60

Gln Lys Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly

<210> 63

<211> 86

<212> PRT

<213> Human HLA-DRB

<400> 63

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala
65 70 75 80

Val Glu Ser Phe Thr Val
85

<210> 64

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 64

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu

35

40

45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 65

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 65

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Met Glu Leu
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 66

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 66

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Val Val Thr Glu Leu
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 67

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 67

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 68

<211> 80

<212> PRT

<213> Human HLA-DRB

<400> 68

Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr Glu Arg

1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr Val Arg
20 25 30

Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg
35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Arg
50 55 60

Gln Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu
65 70 75 80

<210> 69

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 69

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr
20 25 30

Val His Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly

<210> 70

<211> 80

<212> PRT

<213> Human HLA-DRB

<400> 70

Phe Leu Glu Gln Val Lys Pro Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln
50 55 60

Lys Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly
65 70 75 80

<210> 71

<211> 86

<212> PRT

<213> Human HLA-DRB

<400> 71

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val
85

<210> 72

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 72

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr

1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 73

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 73

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 74

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 74

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Gln Lys Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 75

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 75

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Asp Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg
85

<210> 76

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 76

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Gly Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg
85

<210> 77

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 77

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg
85

<210> 78

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 78

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu

50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 79

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 79

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Cys Met Ala Ala Leu Thr
1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr
20 25 30

Gln Pro Arg Phe Leu Trp Gln Gly Lys Tyr Lys Cys His Phe Phe Asn
35 40 45

Gly Thr Glu Arg Val Gln Phe Leu Glu Arg Leu Phe Tyr Asn Gln Glu
50 55 60

Glu Phe Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr
65 70 75 80

Glu Leu Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Ile
85 90 95

Leu Glu Asp Arg Arg Gly Gln Val Asp Thr Val Cys Arg His Asn Tyr
100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Glu Val
115 120 125

Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His Asn Leu Leu
130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp
145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser
195 200 205

Val Met Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His
245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser
260 265

<210> 80

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 80

Arg Phe Leu Trp Gln Gly Lys Tyr Lys Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Gln Phe Leu Glu Arg Leu Phe Tyr Asn Gln Glu Glu Phe
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Arg Arg Gly Gln Val Asp Thr Val Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly

<210> 81

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 81

Arg Phe Leu Trp Gln Gly Lys Tyr Lys Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Gln Phe Leu Glu Ser Leu Phe Tyr Asn Gln Glu Glu Phe
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Arg Arg Gly Gln Val Asp Thr Val Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly

<210> 82

<211> 82

<212> PRT

<213> Human HLA-DRB

<400> 82

Phe Leu Trp Gln Gly Lys Tyr Lys Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Gln Phe Leu Glu Arg Leu Phe Tyr Asn Gln Glu Glu Phe Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp
50 55 60

Arg Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val Gly
65 70 75 80

Glu Ser

<210> 83

<211> 85

<212> PRT

<213> Human HLA-DRB

<400> 83

Arg Phe Leu Trp Gln Gly Lys Tyr Lys Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Gln Phe Leu Glu Arg Leu Phe Tyr Asn Gln Glu Glu Phe
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Arg Lys Asp Ile Leu Glu
50 55 60

Asp Arg Arg Gly Gln Val Asp Thr Val Cys Arg His Asn Tyr Gly Val

65 70 75 80

Gly Glu Ser Phe Thr
85

<210> 84

<211> 179

<212> PRT

<213> Human HLA-DRB

<400> 84

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr
20 25 30

Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Phe Leu Glu Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His
85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser
130 135 140

Thr Gly Leu Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu
165 170 175

His Pro Ser

<210> 85

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 85

Met Val Cys Leu Arg Leu Pro Gly Gly Ser Cys Met Ala Val Leu Thr
1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr
20 25 30

Arg Pro Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn
35 40 45

Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu
50 55 60

Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr
65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe
85 90 95

Leu Glu Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr
100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Lys Val
115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu
130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp
145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser Thr Gly Leu
165 170 175

Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser
195 200 205

Val Thr Ser Pro Leu Thr Val Glu Trp Ser Ala Arg Ser Glu Ser Ala
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu

225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His
245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser
260 265

<210> 86

<211> 183

<212> PRT

<213> Human HLA-DRB

<400> 86

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Lys Val Thr Val
85 90 95

Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu Val Cys
100 105 110

Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp Phe Arg
115 120 125

Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser Thr Gly Leu Ile His
130 135 140

Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr Val Pro
145 150 155 160

Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser Val Thr
165 170 175

Ser Pro Leu Thr Val Glu Trp
180

<210> 87

<211> 86

<212> PRT

<213> Human HLA-DRB

<400> 87

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val
85

<210> 88

<211> 188

<212> PRT

<213> Human HLA-DRB

<400> 88

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr
20 25 30

Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Ile Leu Glu Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg

65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His
 85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His
 100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu
 115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser
 130 135 140

Thr Gly Leu Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu
 165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp
 180 185

<210> 89

<211> 101

<212> PRT

<213> Human HLA-DRB

<400> 89

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr
20 25 30

Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Phe Leu Glu Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His
85 90 95

Pro Lys Val Thr Val
100

<210> 90

<211> 76

<212> PRT

<213> Human HLA-DRB

<400> 90

Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn
1 5 10 15

Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala
20 25 30

Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys
35 40 45

Asp Phe Leu Glu Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His
50 55 60

Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg
65 70 75

<210> 91

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 91

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg

<210> 92

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 92

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 93

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 93

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly

<210> 94

<211> 90

<212> PRT

<213> Human HLA-DRB

<400> 94

Pro Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly
1 5 10 15

Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu
20 25 30

Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu
35 40 45

Leu Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu
50 55 60

Glu Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly
65 70 75 80

Val Val Glu Ser Phe Thr Val Gln Arg Arg
85 90

<210> 95

<211> 86

<212> PRT

<213> Human HLA-DRB

<400> 95

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Val Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu

50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val
85

<210> 96

<211> 80

<212> PRT

<213> Human HLA-DRB

<400> 96

Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr Glu Arg
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg
20 25 30

Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg
35 40 45

Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp Arg
50 55 60

Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu
65 70 75 80

<210> 97

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 97

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 98

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 98

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 99

<211> 86

<212> PRT

<213> Human HLA-DRB

<400> 99

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu

35 40 45

Gly Arg Pro Ala Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val
85

<210> 100

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 100

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 101

<211> 80

<212> PRT

<213> Human HLA-DRB

<400> 101

Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr Glu Arg
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg
20 25 30

Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg
35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Asp Arg
50 55 60

Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu
65 70 75 80

<210> 102

<211> 86

<212> PRT

<213> Human HLA-DRB

<400> 102

Arg Phe Leu Glu Tyr Ser Arg Gly Glu Cys Tyr Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val
85

<210> 103

<211> 84

<212> PRT

<213> Human HLA-DRB

<400> 103

Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Asp Ala Glu His Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp
50 55 60

Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly
65 70 75 80

Glu Ser Phe Thr

<210> 104

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 104

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Asp
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 105

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 105

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly

<210> 106

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 106

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 107

<211> 85

<212> PRT

<213> Human HLA-DRB

<400> 107

Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Ile Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp
50 55 60

Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly
65 70 75 80

Glu Ser Phe Thr Val
85

<210> 108

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 108

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu

35

40

45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 109

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 109

Arg Phe Leu Glu Tyr Ser Met Gly Glu Cys Tyr Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 110

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 110

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 111

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 111

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Arg Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 112

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 112

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr

1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg
85

<210> 113

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 113

Gly Asp Thr Gln Pro Arg Phe Leu Lys Gln Asp Lys Phe Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Tyr Leu His Arg Gly Ile Tyr
20 25 30

Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln
50 55 60

Lys Asp Phe Leu Glu Arg Arg Arg Ala Glu Val Asp Thr Val Cys Arg
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His
85 90 95

Pro Glu Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser
130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu
165 170 175

His Pro Ser Val Met Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser
180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu
195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln
210 215 220

Lys Gly His Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser
225 230 235

<210> 114

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 114

Met Val Cys Leu Arg Leu Pro Gly Gly Ser Cys Met Ala Val Leu Thr
1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr
20 25 30

Arg Pro Arg Phe Leu Glu Glu Val Lys Phe Glu Cys His Phe Phe Asn
35 40 45

Gly Thr Glu Arg Val Arg Leu Leu Glu Arg Arg Val His Asn Gln Glu
50 55 60

Glu Tyr Ala Arg Tyr Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr
65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu
85 90 95

Leu Glu Arg Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr
100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Gln Pro Lys Val

115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu
130 135 140

Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp
145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser Thr Gly Leu
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
180 185 190

Val Pro Gln Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser
195 200 205

Val Met Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His
245 250 255

Ser Gly Leu Pro Pro Thr Gly Phe Leu Ser
260 265

<210> 115

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 115

Arg Phe Leu Glu Glu Val Lys Phe Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Leu Leu Glu Arg Arg Val His Asn Gln Glu Glu Tyr
20 25 30

Ala Arg Tyr Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Arg Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 116

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 116

Met Val Cys Leu Arg Leu Pro Gly Gly Ser Cys Met Ala Val Leu Thr
1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr
20 25 30

Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn
35 40 45

Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu
50 55 60

Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr
65 70 75 80

Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe
85 90 95

Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr
100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Lys Val
115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu
130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp
145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser Thr Gly Leu
165 170 175

Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser

195

200

205

Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His
245 250 255

Ser Gly Leu Gln Pro Arg Gly Phe Leu Ser
260 265

<210> 117

<211> 101

<212> PRT

<213> Human HLA-DRB

<400> 117

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr
20 25 30

Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Phe Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His
85 90 95

Pro Lys Val Thr Val
100

<210> 118

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 118

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 119

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 119

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 120

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 120

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr
20 25 30

Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Ile Leu Glu Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His
85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser
130 135 140

Thr Gly Leu Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met
145 150 155 160

Leu Glu Thr Phe Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu
165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser
180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu
195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln
210 215 220

Lys Gly His Ser Gly Leu Gln Pro Arg Gly Phe Leu Ser
225 230 235

<210> 121

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 121

Met Val Cys Leu Arg Leu Pro Gly Gly Ser Cys Met Ala Val Leu Thr
1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr
20 25 30

Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn
35 40 45

Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu

50

55

60

Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr
65 70 75 80

Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe
 85 90 95

Leu Glu Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr
 100 105 110

Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Lys Val
 115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu
 130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp
145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser Thr Gly Leu
 165 170 175

Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
 180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser
 195 200 205

Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala
 210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His
245 250 255

Ser Gly Leu Gln Pro Arg Gly Phe Leu Ser
260 265

<210> 122

<211> 94

<212> PRT

<213> Human HLA-DRB

<400> 122

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr
20 25 30

Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Phe Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg
85 90

<210> 123

<211> 103

<212> PRT

<213> Human HLA-DRB

<400> 123

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr
20 25 30

Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Phe Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His
85 90 95

Pro Lys Val Thr Val Tyr Pro
100

<210> 124

<211> 90

<212> PRT

<213> Human HLA-DRB

<400> 124

Pro Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys His Phe Phe Asn Gly
1 5 10 15

Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu
 20 25 30

Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu
 35 40 45

Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu
 50 55 60

Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly
65 70 75 80

Val Gly Glu Ser Phe Thr Val Gln Arg Arg
 85 90

<210> 125

<211> 85

<212> PRT

<213> Human HLA-DRB

<400> 125

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala
65 70 75 80

Val Glu Ser Phe Thr
85

<210> 126

<211> 87

<212> PRT

<213> Human HLA-DRB

<400> 126

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg
20 25 30

Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg
35 40 45

Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys

50 55 60

Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val Val Glu
65 70 75 80

Ser Phe Thr Val Gln Arg Arg
85

<210> 127

<211> 79

<212> PRT

<213> Human HLA-DRB

<400> 127

Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp
1 5 10 15

Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val
20 25 30

Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr
35 40 45

Trp Asn Ser Gln Lys Asp Leu Leu Glu Asp Arg Arg Ala Ala Val Asp
50 55 60

Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val
65 70 75

<210> 128

<211> 79

<212> PRT

<213> Human HLA-DRB

<400> 128

Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp
1 5 10 15

Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val
20 25 30

Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr
35 40 45

Trp Asn Ser Gln Lys Asp Leu Leu Glu Asp Arg Arg Ala Ala Val Asp
50 55 60

Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val
65 70 75

<210> 129

<211> 77

<212> PRT

<213> Human HLA-DRB

<400> 129

His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe
1 5 10 15

His Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Phe
20 25 30

Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser
35 40 45

Gln Lys Asp Phe Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys
50 55 60

Arg His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln
65 70 75

<210> 130

<211> 73

<212> PRT

<213> Human HLA-DRB

<400> 130

Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg
1 5 10 15

Tyr Phe His Asn Gln Glu Glu Phe Val Arg Phe Asp Ser Asp Val Gly
20 25 30

Glu Phe Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp
35 40 45

Asn Ser Gln Lys Asp Phe Leu Glu Asp Arg Arg Ala Ala Val Asp Thr
50 55 60

Tyr Cys Arg His Asn Tyr Gly Val Gly

65 70

<210> 131

<211> 79

<212> PRT

<213> Human HLA-DRB

<400> 131

Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp
1 5 10 15

Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val
20 25 30

Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr
35 40 45

Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp Glu Arg Ala Ala Val Asp
50 55 60

Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val
65 70 75

<210> 132

<211> 73

<212> PRT

<213> Human HLA-DRB

<400> 132

Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg
1 5 10 15

Tyr Phe Tyr Asn Gln Glu Glu Phe Val Arg Phe Asp Ser Asp Val Gly
20 25 30

Glu Phe Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp
35 40 45

Asn Ser Gln Lys Asp Phe Leu Glu Asp Arg Arg Ala Ala Val Asp Thr
50 55 60

Tyr Cys Arg His Asn Tyr Gly Val Gly
65 70

<210> 133

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 133

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Phe
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 134

<211> 94

<212> PRT

<213> Human HLA-DRB

<400> 134

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His
20 25 30

Asn Gln Glu Glu Phe Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Leu Leu Glu Arg Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg

85 90

<210> 135

<211> 93

<212> PRT

<213> Human HLA-DRB

<400> 135

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr
20 25 30

Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Ile Leu Glu Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg
85 90

<210> 136

<211> 112

<212> PRT

<213> Human HLA-DRB

<400> 136

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr
 20 25 30

Asn Gln Glu Glu Asp Leu Arg Phe Asp Ser Asp Val Gly Glu Phe Arg
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln
 50 55 60

Lys Asp Phe Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His
 85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His
 100 105 110

<210> 137

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 137

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 138

<211> 112

<212> PRT

<213> Human HLA-DRB

<400> 138

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His
20 25 30

Asn Gln Glu Glu Phe Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg

35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Leu Leu Glu Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His
85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His
100 105 110

<210> 139

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 139

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp
50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val
65 70 75 80

Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 140

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 140

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp
50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly
65 70 75 80

Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 141

<211> 85

<212> PRT

<213> Human HLA-DRB

<400> 141

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn Val Arg
20 25 30

Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg
35 40 45

Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp Glu
50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu
65 70 75 80

Ser Phe Thr Val Gln
85

<210> 142

<211> 80

<212> PRT

<213> Human HLA-DRB

<400> 142

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg
20 25 30

Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg
35 40 45

Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp Glu
50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala Val Glu
65 70 75 80

<210> 143

<211> 82

<212> PRT

<213> Human HLA-DRB

<400> 143

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu

<210> 144

<211> 82

<212> PRT

<213> Human HLA-DRB

<400> 144

Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly
1 5 10 15

Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu
20 25 30

Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu
35 40 45

Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu
50 55 60

Glu Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly
65 70 75 80

Val Gly

<210> 145

<211> 83

<212> PRT

<213> Human HLA-DRB

<400> 145

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Asp Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp
50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly
65 70 75 80

Glu Ser Phe

<210> 146

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 146

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 147

<211> 80

<212> PRT

<213> Human HLA-DRB

<400> 147

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg
20 25 30

Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg
35 40 45

Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Arg
50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu
65 70 75 80

<210> 148

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 148

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp
50 55 60

Arg Arg Ala Ala Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val Gly

65 70 75 80

Glu

<210> 149

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 149

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 150

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 150

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 151

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 151

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 152

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 152

Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu

35

40

45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 153

<211> 120

<212> PRT

<213> Human HLA-DRB

<400> 153

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr
20 25 30

Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu His Trp Asn Ser Gln
50 55 60

Lys Asp Ile Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His
85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val Ser
115 120

<210> 154

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 154

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Val Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 155

<211> 86

<212> PRT

<213> Human HLA-DRB

<400> 155

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg
20 25 30

Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg
35 40 45

Pro Asp Glu Asp Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp Arg
50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu
65 70 75 80

Ser Phe Thr Val Gln Arg
85

<210> 156

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 156

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 157

<211> 86

<212> PRT

<213> Human HLA-DRB

<400> 157

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg
20 25 30

Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg
35 40 45

Pro Asp Glu Asp Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp Arg
50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu
65 70 75 80

Ser Phe Thr Val Gln Arg
85

<210> 158

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 158

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu

50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 159

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 159

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 160

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 160

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Glu Gly Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 161

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 161

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Arg Glu Leu
35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 162

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 162

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val

<210> 163

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 163

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp
50 55 60

Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val
65 70 75 80

Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 164

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 164

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 165

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 165

Met Val Cys Leu Arg Leu Pro Gly Gly Ser Cys Met Ala Val Leu Thr
1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr
20 25 30

Arg Pro Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn
35 40 45

Gly Thr Glu Arg Val Arg Leu Leu Glu Arg His Phe His Asn Gln Glu
50 55 60

Glu Leu Leu Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr
65 70 75 80

Glu Leu Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Ile
85 90 95

Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr
100 105 110

Gly Ala Val Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Lys Val
115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu
130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp
145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser Thr Gly Leu
165 170 175

Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser
195 200 205

Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His
245 250 255

Ser Gly Leu Gln Pro Arg Gly Phe Leu Ser
260 265

<210> 166

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 166

Met Val Cys Leu Arg Leu Pro Gly Gly Ser Cys Met Ala Val Leu Thr

1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr
20 25 30

Arg Pro Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn
35 40 45

Gly Thr Glu Arg Val Arg Leu Leu Glu Arg His Phe His Asn Gln Glu
50 55 60

Glu Leu Leu Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr
65 70 75 80

Glu Leu Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Ile
85 90 95

Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr
100 105 110

Gly Ala Val Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Lys Val
115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu
130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp
145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser Thr Gly Leu
165 170 175

Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser
195 200 205

Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His
245 250 255

Ser Gly Leu Gln Pro Arg Gly Phe Leu Ser
260 265

<210> 167

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 167

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Leu Leu Glu Arg His Phe His Asn Gln Glu Glu Leu
20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala
65 70 75 80

Val

<210> 168

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 168

Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Leu Leu Glu Arg His Phe His Asn Gln Glu Glu Leu Leu
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp
50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala Val
65 70 75 80

Glu

<210> 169

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 169

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Leu Leu Glu Arg His Phe His Asn Gln Glu Glu Leu
20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg
85

<210> 170

<211> 78

<212> PRT

<213> Human HLA-DRB

<400> 170

Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr Glu Arg Val
1 5 10 15

Arg Leu Leu Glu Arg His Phe His Asn Gln Glu Glu Leu Leu Arg Phe
20 25 30

Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg Pro
35 40 45

Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp Arg Arg
50 55 60

Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala Val
65 70 75

<210> 171

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 171

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Leu Leu Glu Arg His Phe His Asn Gln Glu Glu Phe
20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 172

<211> 209

<212> PRT

<213> Human HLA-DRB

<400> 172

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Leu Leu Glu Arg His Phe His
20 25 30

Asn Gln Glu Glu Leu Leu Arg Phe Asp Ser Asp Val Gly Glu Phe Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln
50 55 60

Lys Asp Ile Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg

65 70 75 80

His Asn Tyr Gly Ala Val Glu Ser Phe Thr Val Gln Arg Arg Val His
 85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His
 100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu
 115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser
 130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met
 145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu
 165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser
 180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu
 195 200 205

Gly

<210> 173

<211> 174

<212> PRT

<213> Human HLA-DRB

<400> 173

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Leu Leu Glu Arg His Phe His Asn Gln Glu Glu Leu
20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Ile Leu Gly
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Lys Val Thr Val
85 90 95

Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu Val Cys
100 105 110

Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp Phe Arg
115 120 125

Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser Thr Gly Leu Ile His
130 135 140

Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr Val Pro
145 150 155 160

Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser
165 170

<210> 174

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 174

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu Glu Leu
20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 175

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 175

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His
20 25 30

Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Ile Leu Glu Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His
85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser
130 135 140

Thr Gly Leu Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu
165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser
180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu
195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln
210 215 220

Lys Gly His Ser Gly Leu Gln Pro Arg Gly Phe Leu Ser
225 230 235

<210> 176

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 176

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu

50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 177

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 177

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His
20 25 30

Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Ile Leu Glu Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His
85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser
130 135 140

Thr Gly Leu Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu
165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser
180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu
195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln
210 215 220

Lys Gly His Ser Gly Leu Gln Pro Arg Gly Phe Leu Ser
225 230 235

<210> 178

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 178

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg
85

<210> 179

<211> 101

<212> PRT

<213> Human HLA-DRB

<400> 179

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr
20 25 30

Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Ile Leu Glu Asp Lys Arg Ala Ala Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His
85 90 95

Pro Lys Val Thr Val
100

<210> 180

<211> 87

<212> PRT

<213> Human HLA-DRB

<400> 180

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg
20 25 30

Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg
35 40 45

Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp Lys
50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu
65 70 75 80

Ser Phe Thr Val Gln Arg Arg
85

<210> 181

<211> 101

<212> PRT

<213> Human HLA-DRB

<400> 181

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr
20 25 30

Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Ile Leu Glu Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His

85 90 95

Pro Lys Val Thr Val
100

<210> 182

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 182

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 183

<211> 76

<212> PRT

<213> Human HLA-DRB

<400> 183

Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr
1 5 10 15

Phe His Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu
20 25 30

Phe Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn
35 40 45

Ser Gln Lys Asp Ile Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr
50 55 60

Cys Arg His Asn Tyr Gly Val Val Glu Ser Phe Thr
65 70 75

<210> 184

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 184

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 185

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 185

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu

50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 186

<211> 85

<212> PRT

<213> Human HLA-DRB

<400> 186

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp
50 55 60

Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val
65 70 75 80

Glu Ser Phe Thr Val
85

<210> 187

<211> 85

<212> PRT

<213> Human HLA-DRB

<400> 187

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Gln
50 55 60

Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val
65 70 75 80

Glu Ser Phe Thr Val
85

<210> 188

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 188

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Lys Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 189

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 189

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 190

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 190

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 191

<211> 86

<212> PRT

<213> Human HLA-DRB

<400> 191

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val
85

<210> 192

<211> 75

<212> PRT

<213> Human HLA-DRB

<400> 192

Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu
1 5 10 15

Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp
20 25 30

Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu
35 40 45

Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp Arg Arg Ala Ala Val
50 55 60

Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly
65 70 75

<210> 193

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 193

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 194

<211> 84

<212> PRT

<213> Human HLA-DRB

<400> 194

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Asn Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp

50 55 60

Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val
65 70 75 80

Glu Ser Phe Thr

<210> 195

<211> 82

<212> PRT

<213> Human HLA-DRB

<400> 195

Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val
1 5 10 15

Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn Val Arg Phe
20 25 30

Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg Pro
35 40 45

Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp Glu Arg
50 55 60

Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Asp Glu Ser
65 70 75 80

Phe Thr

<210> 196

<211> 114

<212> PRT

<213> Human HLA-DRB

<400> 196

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr
20 25 30

Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Ile Leu Glu Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His
85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu

<210> 197

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 197

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 198

<211> 108

<212> PRT

<213> Human HLA-DRB

<400> 198

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Glu Arg Tyr Phe His
20 25 30

Asn Gln Glu Glu Phe Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Ile Leu Glu Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His
85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro
100 105

<210> 199

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 199

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg
85

<210> 200

<211> 119

<212> PRT

<213> Human HLA-DRB

<400> 200

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr
20 25 30

Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln

50 55 60

Lys Asp Phe Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His
85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val
115

<210> 201

<211> 90

<212> PRT

<213> Human HLA-DRB

<400> 201

Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly
1 5 10 15

Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu
20 25 30

Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu
35 40 45

Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu
50 55 60

Glu Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly
65 70 75 80

Val Val Glu Ser Phe Thr Val Gln Arg Arg
 85 90

<210> 202

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 202

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
 50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg
 85

<210> 203

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 203

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg
85

<210> 204

<211> 82

<212> PRT

<213> Human HLA-DRB

<400> 204

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu

<210> 205

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 205

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 206

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 206

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val

65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 207

<211> 82

<212> PRT

<213> Human HLA-DRB

<400> 207

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn Val Arg
20 25 30

Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg
35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp Glu
50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Arg Val Val Glu
65 70 75 80

Ser Phe

<210> 208

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 208

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 209

<211> 84

<212> PRT

<213> Human HLA-DRB

<400> 209

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp
50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly
65 70 75 80

Glu Ser Phe Thr

<210> 210

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 210

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu

35

40

45

Gly Arg Pro Val Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 211

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 211

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 212

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 212

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Lys Arg Ala Ala Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly

<210> 213

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 213

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val His Arg Arg
85

<210> 214

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 214

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr

1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Leu Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg
85

<210> 215

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 215

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 216

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 216

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Lys Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 217

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 217

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly

<210> 218

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 218

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Ser Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 219

<211> 87

<212> PRT

<213> Human HLA-DRB

<400> 219

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn Val Arg
20 25 30

Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg
35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp Glu
50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu
65 70 75 80

Ser Phe Thr Val Gln Arg Arg
85

<210> 220

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 220

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu

50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 221

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 221

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 222

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 222

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 223

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 223

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 224

<211> 80

<212> PRT

<213> Human HLA-DRB

<400> 224

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg
20 25 30

Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg
35 40 45

Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp Glu
50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu
65 70 75 80

<210> 225

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 225

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Val Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 226

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 226

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 227

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 227

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 228

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 228

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg
85

<210> 229

<211> 94

<212> PRT

<213> Human HLA-DRB

<400> 229

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His
20 25 30

Asn Gln Glu Glu Phe Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Ala Ala Glu His Trp Asn Ser Gln

50 55 60

Lys Asp Leu Leu Glu Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg
85 90

<210> 230

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 230

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val

<210> 231

<211> 94

<212> PRT

<213> Human HLA-DRB

<400> 231

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Glu Arg Tyr Phe His
 20 25 30

Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
 50 55 60

Lys Asp Leu Leu Glu Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg
 85 90

<210> 232

<211> 94

<212> PRT

<213> Human HLA-DRB

<400> 232

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Glu Arg Tyr Phe His
20 25 30

Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Leu Leu Glu Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg
85 90

<210> 233

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 233

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 234

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 234

Phe Leu Glu Tyr Ser Thr Ser Glu Cys Gln Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Arg
50 55 60

Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val
65 70 75 80

Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 235

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 235

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Asn Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln
50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val
65 70 75 80

Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 236

<211> 78

<212> PRT

<213> Human HLA-DRB

<400> 236

Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val
1 5 10 15

Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe Val Arg Phe
20 25 30

Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro
35 40 45

Ala Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu Arg Arg Arg
50 55 60

Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly
65 70 75

<210> 237

<211> 87

<212> PRT

<213> Human HLA-DRB

<400> 237

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Asp Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu Arg
50 55 60

Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val
65 70 75 80

Glu Ser Phe Thr Val Gln Arg
85

<210> 238

<211> 87

<212> PRT

<213> Human HLA-DRB

<400> 238

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln

50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly
65 70 75 80

Glu Ser Phe Thr Val Gln Arg
85

<210> 239

<211> 87

<212> PRT

<213> Human HLA-DRB

<400> 239

Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu Arg
50 55 60

Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val
65 70 75 80

Glu Ser Phe Thr Val Gln Arg
85

<210> 240

<211> 78

<212> PRT

<213> Human HLA-DRB

<400> 240

Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr Glu Arg Val
1 5 10 15

Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe Val Arg Phe
20 25 30

Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro
35 40 45

Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Arg Arg Arg
50 55 60

Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val
65 70 75

<210> 241

<211> 74

<212> PRT

<213> Human HLA-DRB

<400> 241

Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Glu
1 5 10 15

Arg Tyr Phe His Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val
20 25 30

Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr
35 40 45

Trp Asn Ser Gln Lys Asp Leu Leu Glu Asp Arg Arg Ala Leu Val Asp
50 55 60

Thr Tyr Cys Arg His Asn Tyr Gly Val Val
65 70

<210> 242

<211> 78

<212> PRT

<213> Human HLA-DRB

<400> 242

Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val
1 5 10 15

Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Asn Val Arg Phe
20 25 30

Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro
35 40 45

Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Arg Arg

50 55 60

Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly
65 70 75

<210> 243

<211> 85

<212> PRT

<213> Human HLA-DRB

<400> 243

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Arg
50 55 60

Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly
65 70 75 80

Glu Ser Phe Thr Val
85

<210> 244

<211> 82

<212> PRT

<213> Human HLA-DRB

<400> 244

Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr Glu Arg Val Arg Phe
1 5 10 15

Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe Val Arg Phe Asp Ser
20 25 30

Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Ala
35 40 45

Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp Arg Arg Ala Leu
50 55 60

Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu Ser Phe Thr
65 70 75 80

Val Gln

<210> 245

<211> 80

<212> PRT

<213> Human HLA-DRB

<400> 245

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe Val Arg
20 25 30

Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg
35 40 45

Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp Glu
50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu
65 70 75 80

<210> 246

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 246

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu

50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg
85

<210> 247

<211> 86

<212> PRT

<213> Human HLA-DRB

<400> 247

Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val
1 5 10 15

Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Asn Val Arg Phe
20 25 30

Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro
35 40 45

Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Arg Arg Arg
50 55 60

Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu Ser
65 70 75 80

Phe Thr Val Gln Arg Arg
85

<210> 248

<211> 90

<212> PRT

<213> Human HLA-DRB

<400> 248

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Glu Arg Tyr Phe His
20 25 30

Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Ala Ala Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr
85 90

<210> 249

<211> 80

<212> PRT

<213> Human HLA-DRB

<400> 249

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg
1 5 10 15

Val Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Phe Val Arg
20 25 30

Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg
35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Arg
50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu
65 70 75 80

<210> 250

<211> 80

<212> PRT

<213> Human HLA-DRB

<400> 250

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn Val Arg
20 25 30

Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg
35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys
50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu
65 70 75 80

<210> 251

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 251

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 252

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 252

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 253

<211> 96

<212> PRT

<213> Human HLA-DRB

<400> 253

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Asn Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Gln
50 55 60

Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly
65 70 75 80

Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Lys Val Thr Val Tyr
85 90 95

<210> 254

<211> 78

<212> PRT

<213> Human HLA-DRB

<400> 254

Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val
1 5 10 15

Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg Phe
20 25 30

Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro
35 40 45

Ala Ala Glu His Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp Arg Arg
50 55 60

Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly
65 70 75

<210> 255

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 255

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Gln Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg

85

<210> 256

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 256

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 257

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 257

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala
65 70 75 80

Val

<210> 258

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 258

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 259

<211> 84

<212> PRT

<213> Human HLA-DRB

<400> 259

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln

50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly
65 70 75 80

Glu Ser Phe Thr

<210> 260

<211> 84

<212> PRT

<213> Human HLA-DRB

<400> 260

Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu Arg
50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val
65 70 75 80

Glu Ser Phe Thr

<210> 261

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 261

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Arg Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 262

<211> 86

<212> PRT

<213> Human HLA-DRB

<400> 262

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn Val Arg
20 25 30

Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg
35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Arg
50 55 60

Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu
65 70 75 80

Ser Phe Thr Val Gln Arg
85

<210> 263

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 263

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Arg Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 264

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 264

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg
85

<210> 265

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 265

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe
20 25 30

Val Arg Phe Asp Ser Asp Val Arg Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 266

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 266

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys Gln Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 267

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 267

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Arg Arg Arg Ala Glu Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 268

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 268

Arg Phe Leu Glu Tyr Pro Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu

35 40 45

Gly Arg Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 269

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 269

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Phe
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 270

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 270

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Cys Met Thr Ala Leu Thr
1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ser Gly Asp Thr
20 25 30

Arg Pro Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn
35 40 45

Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu
50 55 60

Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr
65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile
85 90 95

Leu Glu Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr
100 105 110

Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val Gln Pro Lys Val
115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu
130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp
145 150 155 160

Phe Leu Asn Gly Gln Glu Glu Lys Ala Gly Met Val Ser Thr Gly Leu
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser
195 200 205

Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His
245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser
260 265

<210> 271

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 271

Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg
85

<210> 272

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 272

Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg
85

<210> 273

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 273

Gly Asp Thr Arg Pro Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr
20 25 30

Asn Gln Glu Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln

50 55 60

Lys Asp Ile Leu Glu Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Gln
85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu
115 120 125

Val Arg Trp Phe Leu Asn Gly Gln Glu Glu Lys Ala Gly Met Val Ser
130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu
165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser
180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu
195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln
210 215 220

Lys Gly His Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser
225 230 235

<210> 274

<211> 73

<212> PRT

<213> Human HLA-DRB

<400> 274

Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg
1 5 10 15

Tyr Phe Tyr Asn Gln Glu Glu Ser Val Arg Phe Asp Ser Asp Val Gly
20 25 30

Glu Phe Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp
35 40 45

Asn Ser Gln Lys Asp Ile Leu Glu Gln Ala Arg Ala Ala Val Asp Thr
50 55 60

Tyr Cys Arg His Asn Tyr Gly Val Gly
65 70

<210> 275

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 275

Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly

<210> 276

<211> 98

<212> PRT

<213> Human HLA-DRB

<400> 276

Gly Asp Thr Arg Pro Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg His Phe Tyr
20 25 30

Asn Gln Glu Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg

35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Ile Leu Glu Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val Gln
85 90 95

Pro Lys

<210> 277

<211> 85

<212> PRT

<213> Human HLA-DRB

<400> 277

Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu Gln
50 55 60

Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val
65 70 75 80

Glu Ser Phe Thr Val
85

<210> 278

<211> 87

<212> PRT

<213> Human HLA-DRB

<400> 278

Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln
50 55 60

Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val
65 70 75 80

Glu Ser Phe Thr Val Gln Arg
85

<210> 279

<211> 79

<212> PRT

<213> Human HLA-DRB

<400> 279

Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val
1 5 10 15

Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser Val Arg Phe
20 25 30

Asp Ser Asp Val Gly Glu Phe Arg Ala Ala Thr Glu Leu Gly Arg Pro
35 40 45

Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Gln Ala Arg
50 55 60

Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu
65 70 75

<210> 280

<211> 82

<212> PRT

<213> Human HLA-DRB

<400> 280

Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr Glu

1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Gln
50 55 60

Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val
65 70 75 80

Glu Ser

<210> 281

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 281

Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asn Ile Leu Glu
50 55 60

Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 282

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 282

Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Gln Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 283

<211> 82

<212> PRT

<213> Human HLA-DRB

<400> 283

Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp
50 55 60

Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val
65 70 75 80

Glu Ser

<210> 284

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 284

Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 285

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 285

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Cys Met Thr Ala Leu Thr
1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr
20 25 30

Arg Pro Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn
35 40 45

Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu
50 55 60

Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr
65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe
85 90 95

Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr
100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Gln Pro Lys Val
115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu
130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp
145 150 155 160

Phe Leu Asn Gly Gln Glu Glu Lys Ala Gly Met Val Ser Thr Gly Leu
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser

195 200 205

Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His
245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser
260 265

<210> 286

<211> 85

<212> PRT

<213> Human HLA-DRB

<400> 286

Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr
85

<210> 287

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 287

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Cys Met Thr Ala Leu Thr
1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr
20 25 30

Arg Pro Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn
35 40 45

Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu
50 55 60

Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr
65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu
85 90 95

Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr
100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Gln Pro Lys Val
115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu
130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp
145 150 155 160

Phe Leu Asn Gly Gln Glu Glu Lys Ala Gly Met Val Ser Thr Gly Leu
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser
195 200 205

Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His
245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser
260 265

<210> 288

<211> 80

<212> PRT

<213> Human HLA-DRB

<400> 288

Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Asp
50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly
65 70 75 80

<210> 289

<211> 262

<212> PRT

<213> Human HLA-DRB

<400> 289

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Cys Met Thr Ala Leu Thr
1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr
20 25 30

Arg Pro Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn
35 40 45

Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu
50 55 60

Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr
65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe
85 90 95

Leu Glu Asp Arg Ala Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr
100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Gln Pro Lys Val
115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu
130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp
145 150 155 160

Phe Leu Asn Gly Gln Glu Glu Lys Ala Gly Met Val Ser Thr Gly Leu
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser

195

200

205

Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His
245 250 255

Ser Gly Leu Gln Pro Thr
260

<210> 290

<211> 78

<212> PRT

<213> Human HLA-DRB

<400> 290

Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val
1 5 10 15

Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser Val Arg Phe
20 25 30

Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro
35 40 45

Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp Arg Arg
50 55 60

Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly
65 70 75

<210> 291

<211> 80

<212> PRT

<213> Human HLA-DRB

<400> 291

Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr Glu Arg
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser Val Arg
20 25 30

Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg
35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp Arg
50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu
65 70 75 80

<210> 292

<211> 86

<212> PRT

<213> Human HLA-DRB

<400> 292

Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Pro Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val
85

<210> 293

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 293

Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 294

<211> 188

<212> PRT

<213> Human HLA-DRB

<400> 294

Gly Asp Thr Arg Pro Arg Phe Leu Glu Leu Arg Lys Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His
20 25 30

Asn Gln Glu Glu Phe Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln
50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His
 85 90 95

Pro Gln Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His
 100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu
 115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Lys Ala Gly Val Val Ser
 130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu
 165 170 175

His Pro Ser Val Thr Ser Ala Leu Thr Val Glu Trp
 180 185

<210> 295

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 295

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Ser Leu Ala Ala Leu Thr

1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Arg Leu Ala Phe Ala Gly Asp Thr
20 25 30

Arg Pro Arg Phe Leu Glu Leu Arg Lys Ser Glu Cys His Phe Phe Asn
35 40 45

Gly Thr Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu
50 55 60

Glu Phe Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr
65 70 75 80

Glu Leu Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu
85 90 95

Leu Glu Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr
100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Gln Val
115 120 125

Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His Asn Leu Leu
130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp
145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser
195 200 205

Val Thr Ser Ala Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His
245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser
260 265

<210> 296

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 296

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Ser Leu Ala Ala Leu Thr
1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Arg Leu Ala Phe Ala Gly Asp Thr
20 25 30

Arg Pro Arg Phe Leu Glu Leu Arg Lys Ser Glu Cys His Phe Phe Asn
35 40 45

Gly Thr Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu
50 55 60

Glu Phe Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr
65 70 75 80

Glu Leu Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu
85 90 95

Leu Glu Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr
100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Gln Val
115 120 125

Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His Asn Leu Leu
130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp
145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser
195 200 205

Val Thr Ser Ala Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu

225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His
 245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser
 260 265

<210> 297

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 297

Gly Asp Thr Arg Pro Arg Phe Leu Glu Leu Arg Lys Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His
 20 25 30

Asn Gln Glu Glu Phe Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln
 50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser
 85

<210> 298

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 298

Arg Phe Leu Glu Leu Arg Lys Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe
20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly

<210> 299

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 299

Gly Asp Thr Arg Pro Arg Phe Leu Glu Leu Cys Lys Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His
20 25 30

Asn Gln Glu Glu Phe Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln
50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser
85

<210> 300

<211> 83

<212> PRT

<213> Human HLA-DRB

<400> 300

Arg Phe Leu Glu Leu Arg Lys Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Tyr Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Phe
20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser

<210> 301

<211> 85

<212> PRT

<213> Human HLA-DRB

<400> 301

Arg Phe Ser Glu Leu Arg Lys Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe
20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr
85

<210> 302

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 302

Arg Phe Leu Glu Leu Arg Lys Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Tyr Leu Asn Arg Tyr Phe His Asn Gln Glu Glu Phe
20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg
85

<210> 303

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 303

Arg Phe Leu Glu Leu Arg Lys Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly

<210> 304

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 304

Arg Phe Leu Glu Leu Arg Lys Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Tyr
20 25 30

Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly

<210> 305

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 305

Arg Phe Leu Glu Leu Arg Lys Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu

35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg
85

<210> 306

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 306

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Ser Leu Ala Ala Leu Thr
1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Arg Leu Ala Phe Ala Gly Asp Thr
20 25 30

Arg Pro Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn
35 40 45

Gly Thr Glu Arg Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu
50 55 60

Glu Tyr Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg
65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu
85 90 95

Leu Glu Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr
100 105 110

Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Gln Val
115 120 125

Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His Asn Leu Leu
130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp
145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
180 185 190

Phe Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser
195 200 205

Val Thr Ser Pro Leu Thr Val Glu Trp Ser Ala Arg Ser Glu Ser Ala
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His
245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser
260 265

<210> 307

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 307

Gly Asp Thr Arg Pro Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Glu Arg His Phe His
20 25 30

Asn Gln Glu Glu Tyr Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Arg Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His
85 90 95

Pro Gln Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu

115

120

125

Val Arg Trp Phe Arg Asn Gly Gln Glu Lys Ala Gly Val Val Ser
130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu
165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Ser Ala Arg Ser
180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu
195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln
210 215 220

Lys Gly His Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser
225 230 235

<210> 308

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 308

Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu Glu Tyr
20 25 30

Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly

<210> 309

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 309

Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu Glu Tyr
20 25 30

Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg
85

<210> 310

<211> 87

<212> PRT

<213> Human HLA-DRB

<400> 310

Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg
1 5 10 15

Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu Glu Ser Val Arg
20 25 30

Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu Gly Arg
35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys
50 55 60

Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val Gly Glu
65 70 75 80

Ser Phe Thr Val Gln Arg Arg

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg
85

<210> 310

<211> 87

<212> PRT

<213> Human HLA-DRB

<400> 310

Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg
1 5 10 15

Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu Glu Ser Val Arg
20 25 30

Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu Gly Arg
35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys
50 55 60

Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val Gly Glu
65 70 75 80

Ser Phe Thr Val Gln Arg Arg

85

<210> 311

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 311

Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu Glu Tyr
20 25 30

Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 312

<211> 87

<212> PRT

<213> Human HLA-DRB

<400> 312

Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Tyr
20 25 30

Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln
85

<210> 313

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 313

Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu Glu Asn
20 25 30

Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly

<210> 314

<211> 80

<212> PRT

<213> Human HLA-DRB

<400> 314

Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg
1 5 10 15

Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu Glu Tyr Ala Arg
20 25 30

Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu Gly Arg
35 40 45

Pro Val Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys

50

55

60

Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val Gly Glu
65 70 75 80

<210> 315

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 315

Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu Glu Tyr
20 25 30

Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly

<210> 316

<211> 84

<212> PRT

<213> Human HLA-DRB

<400> 316

Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu Glu Tyr
20 25 30

Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe

<210> 317

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 317

Gly Asp Thr Arg Pro Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Glu Arg His Phe His
20 25 30

Asn Gln Glu Glu Tyr Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His
85 90 95

Pro Gln Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser
130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu
165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Ser Ala Arg Ser

180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu
195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln
210 215 220

Lys Gly His Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser
225 230 235

<210> 318

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 318

Gly Asp Thr Arg Pro Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Glu Arg His Phe His
20 25 30

Asn Gln Glu Glu Tyr Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Arg Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Ile Leu Glu Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His
85 90 95

Pro Gln Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser
130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu
165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Ser Ala Arg Ser
180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu
195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln
210 215 220

Lys Gly His Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser
225 230 235

<210> 319

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 319

Arg Phe Leu Gln Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu Glu Tyr
20 25 30

Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 320

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 320

Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr

1 5 10 15

Glu Arg Val Arg Leu Leu Glu Arg His Phe His Asn Gln Glu Glu Tyr
20 25 30

Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 321

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 321

Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu Glu Tyr
20 25 30

Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Ala Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 322

<211> 188

<212> PRT

<213> Human HLA-DRB

<400> 322

Gly Asp Thr Arg Pro Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Glu Arg Tyr Phe His
20 25 30

Asn Gln Glu Glu Phe Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln
50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His
85 90 95

Pro Gln Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser
130 135 140

Thr Gly Leu Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu
165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp
180 185

<210> 323

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 323

Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Phe

20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 324

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 324

Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu Glu Phe
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Val

<210> 325

<211> 84

<212> PRT

<213> Human HLA-DRB

<400> 325

Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Phe Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln
50 55 60

Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val Gly
65 70 75 80

Glu Ser Phe Thr

<210> 326

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 326

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Cys Met Ala Ala Leu Thr
1 5 10 15

Val Thr Leu Thr Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr
20 25 30

Gln Pro Arg Phe Leu Glu Gln Ala Lys Cys Glu Cys His Phe Leu Asn
35 40 45

Gly Thr Glu Arg Val Trp Asn Leu Ile Arg Tyr Ile Tyr Asn Gln Glu
50 55 60

Glu Tyr Ala Arg Tyr Asn Ser Asp Leu Gly Glu Tyr Gln Ala Val Thr
65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu
85 90 95

Leu Glu Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg Tyr Asn Tyr
100 105 110

Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val Gln Pro Lys Val
115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu

130 135 140

Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp
145 150 155 160

Phe Arg Asn Ser Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser
195 200 205

Met Met Ser Pro Leu Thr Val Gln Trp Ser Ala Arg Ser Glu Ser Ala
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu
225 230 235 240

Phe Leu Gly Thr Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His
245 250 255

Ser Gly Leu Gln Pro Thr Gly Leu Leu Ser
260 265

<210> 327

<211> 155

<212> PRT

<213> Human HLA-DRB

<400> 327

Glu Arg Val Trp Asn Leu Ile Arg Tyr Ile Tyr Asn Gln Glu Glu Tyr
1 5 10 15

Ala Arg Tyr Asn Ser Asp Leu Gly Glu Tyr Gln Ala Val Thr Glu Leu
20 25 30

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
35 40 45

Arg Arg Arg Ala Glu Val Gly Thr Tyr Cys Arg Tyr Asn Tyr Gly Val
50 55 60

Val Glu Ser Phe Thr Val Gln Arg Arg Val Gln Pro Lys Val Thr Val
65 70 75 80

Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu Val Cys
85 90 95

Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp Phe Arg
100 105 110

Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu Ile Gln
115 120 125

Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr Val Pro
130 135 140

Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu
145 150 155

<210> 328

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 328

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Cys Met Ala Ala Leu Thr
1 5 10 15

Val Thr Leu Thr Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr
20 25 30

Gln Pro Arg Phe Leu Glu Gln Ala Lys Cys Glu Cys His Phe Leu Asn
35 40 45

Gly Thr Glu Arg Val Trp Asn Leu Ile Arg Tyr Ile Tyr Asn Gln Glu
50 55 60

Glu Tyr Ala Arg Tyr Asn Ser Asp Leu Gly Glu Tyr Gln Ala Val Thr
65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu
85 90 95

Leu Glu Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg Tyr Asn Tyr
100 105 110

Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val Gln Pro Lys Val
115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu
130 135 140

Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp

145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser
195 200 205

Met Met Ser Pro Leu Thr Val Gln Trp Ser Ala Arg Ser Glu Ser Ala
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu
225 230 235 240

Phe Leu Gly Thr Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His
245 250 255

Ser Gly Leu Gln Pro Thr Gly Leu Leu Ser
260 265

<210> 329

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 329

Gly Asp Thr Gln Pro Arg Phe Leu Glu Gln Ala Lys Cys Glu Cys His
1 5 10 15

Phe Leu Asn Gly Thr Glu Arg Val Trp Asn Leu Ile Arg Tyr Ile Tyr
20 25 30

Asn Gln Glu Glu Tyr Ala Arg Tyr Asn Ser Asp Leu Gly Glu Tyr Gln
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Leu Leu Glu Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg
65 70 75 80

Tyr Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val Gln
85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser
130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu
165 170 175

His Pro Ser Met Met Ser Pro Leu Thr Val Gln Trp Ser Ala Arg Ser
180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu
195 200 205

Gly Leu Leu Phe Leu Gly Thr Gly Leu Phe Ile Tyr Phe Arg Asn Gln
210 215 220

Lys Gly His Ser Gly Leu Gln Pro Thr Gly Leu Leu Ser
225 230 235

<210> 330

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 330

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Cys Met Ala Ala Leu Thr
1 5 10 15

Val Thr Leu Thr Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr
20 25 30

Gln Pro Arg Phe Leu Glu Gln Ala Lys Cys Glu Cys His Phe Leu Asn
35 40 45

Gly Thr Glu Arg Val Trp Asn Leu Ile Arg Tyr Ile Tyr Asn Gln Glu
50 55 60

Glu Tyr Ala Arg Tyr Asn Ser Asp Leu Gly Glu Tyr Gln Ala Val Thr
65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu

85 90 95

Leu Glu Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg Tyr Asn Tyr
100 105 110

Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val Gln Pro Lys Val
115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu
130 135 140

Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp
145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser
195 200 205

Met Met Ser Pro Leu Thr Val Gln Trp Ser Ala Arg Ser Glu Ser Ala
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu
225 230 235 240

Phe Leu Gly Thr Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His
245 250 255

Ser Gly Leu Gln Pro Thr Gly Leu Leu Ser
260 265

<210> 331

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 331

Arg Phe Leu Glu Gln Ala Lys Cys Glu Cys His Phe Leu Asn Gly Thr
1 5 10 15

Glu Arg Val Trp Asn Leu Ile Arg Tyr Ile Tyr Asn Gln Glu Glu Tyr
20 25 30

Ala Arg Tyr Asn Ser Asp Leu Gly Glu Tyr Gln Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Arg Arg Arg Ala Glu Val Asp Asn Tyr Cys Arg Tyr Asn Tyr Gly Val
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 332

<211> 80

<212> PRT

<213> Human HLA-DRB

<400> 332

Leu Glu Gln Ala Lys Cys Glu Cys His Phe Leu Asn Gly Thr Glu Arg
1 5 10 15

Val Trp Asn Leu Ile Arg Tyr Ile Tyr Asn Gln Glu Glu Tyr Ala Arg
20 25 30

Tyr Asn Ser Asp Leu Gly Glu Tyr Gln Ala Val Thr Glu Leu Gly Arg
35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Arg Arg
50 55 60

Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu
65 70 75 80

<210> 333

<211> 38

<212> PRT

<213> Human HLA-DRB

<220>

<221> MISC_FEATURE

<222> (38)..(38)

<223> Where X = Unknown

<400> 333

Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr Gln Pro Arg Phe
1 5 10 15

Leu Glu Gln Ala Lys Cys Glu Cys His Phe Leu Asn Gly Thr Glu Pro
20 25 30

Asp Gln Ile His Leu Xaa
35

<210> 334

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 334

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Tyr Met Ala Lys Leu Thr
1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr
20 25 30

Arg Pro Arg Phe Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn
35 40 45

Gly Thr Glu Arg Val Arg Phe Leu His Arg Asp Ile Tyr Asn Gln Glu
50 55 60

Glu Asp Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr
65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe

85

90

95

Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr
100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Glu Pro Lys Val
115 120 125

Thr Val Tyr Pro Ala Arg Thr Gln Thr Leu Gln His His Asn Leu Leu
130 135 140

Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp
145 150 155 160

Phe Arg Asn Ser Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser
195 200 205

Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Gln Ser Glu Ser Ala
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Lys Asn Gln Lys Gly His
245 250 255

Ser Gly Leu His Pro Thr Gly Leu Val Ser
260 265

<210> 335

<211> 85

<212> PRT

<213> Human HLA-DRB

<400> 335

Arg Phe Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu His Arg Asp Ile Tyr Asn Gln Glu Glu Asp
20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr
85

<210> 336

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 336

Gly Asp Thr Arg Pro Arg Phe Leu Gln Gln Asp Lys Tyr Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu His Arg Gly Ile Tyr
20 25 30

Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Phe Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Glu
85 90 95

Pro Lys Val Thr Val Tyr Pro Ala Arg Thr Gln Thr Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu
115 120 125

Val Arg Trp Phe Arg Asn Ser Gln Glu Glu Lys Ala Gly Val Val Ser
130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu
165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Gln Ser
180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu
195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Lys Asn Gln
210 215 220

Lys Gly His Ser Gly Leu His Pro Thr Gly Leu Val Ser
225 230 235

<210> 337

<211> 83

<212> PRT

<213> Human HLA-DRB

<400> 337

Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn Gly Thr Glu Arg
1 5 10 15

Val Arg Phe Leu His Arg Gly Ile Tyr Asn Gln Glu Glu Asn Val Arg
20 25 30

Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg
35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp Thr
50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu
65 70 75 80

Ser Phe Thr

<210> 338

<211> 111

<212> PRT

<213> Human HLA-DRB

<400> 338

Gly Asp Thr Arg Pro Arg Phe Leu Gln Gln Asp Lys Tyr Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu His Arg Asp Ile Tyr
20 25 30

Asn Gln Glu Glu Asp Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Phe Leu Glu Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Glu
85 90 95

Pro Lys Val Thr Val Tyr Pro Ala Arg Thr Gln Thr Leu Gln His

100 105 110

<210> 339

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 339

Pro Arg Phe Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn Gly
1 5 10 15

Thr Glu Arg Val Arg Phe Leu His Arg Asp Ile Tyr Asn Gln Glu Glu
20 25 30

Asp Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu
35 40 45

Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu
50 55 60

Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly
65 70 75 80

Val Gly Glu Ser Phe Thr Val Gln Arg
85

<210> 340

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 340

Arg Phe Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu His Arg Asp Ile Tyr Asn Gln Glu Glu Asp
20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 341

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 341

Arg Phe Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu His Arg Asp Ile Tyr Asn Gln Glu Glu Asp
20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly

<210> 342

<211> 167

<212> PRT

<213> Human HLA-DRB

<220>

<221> MISC_FEATURE

<222> (167)..(167)

<223> Where X = Unknown

<400> 342

Arg Phe Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu His Arg Gly Ile Tyr Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg Val Glu Pro Lys Val Thr Val
85 90 95

Tyr Pro Ala Arg Thr Gln Thr Leu Gln His His Asn Leu Leu Val Cys
100 105 110

Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp Phe Arg
115 120 125

Asn Ser Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu Ile Gln
130 135 140

Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Arg Phe Thr
145 150 155 160

Pro Ala Lys Trp Ser Thr Xaa
165

<210> 343

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 343

Arg Phe Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu His Arg Asp Ile Tyr Asn Gln Glu Glu Asp
20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asn Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val
65 70 75 80

Gly

<210> 344

<211> 81

<212> PRT

<213> Human HLA-DRB

<220>

<221> MISC_FEATURE

<222> (81)..(81)

<223> Where X = Unknown

<400> 344

Arg Phe Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu His Arg Gly Ile Tyr Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Thr Gln Leu Arg Gly Trp
65 70 75 80

Xaa

<210> 345

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 345

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Tyr Met Ala Val Leu Thr
1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr
20 25 30

Arg Pro Cys Phe Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn
35 40 45

Gly Thr Glu Arg Val Arg Phe Leu His Arg Gly Ile Tyr Asn Gln Glu
50 55 60

Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr
65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile
85 90 95

Leu Glu Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr
100 105 110

Gly Ala Val Glu Ser Phe Thr Val Gln Arg Arg Val Glu Pro Lys Val
115 120 125

Thr Val Tyr Pro Ala Arg Thr Gln Thr Leu Gln His His Asn Leu Leu
130 135 140

Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp
145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Ile Leu Val Met Leu Glu Thr
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser

195

200

205

Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Gln Ser Glu Ser Ala
210 215 220

Gln Ser Lys Met Leu Ser Gly Ile Gly Gly Phe Val Leu Gly Leu Leu
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Lys Asn Gln Lys Gly His
245 250 255

Ser Gly Leu His Pro Thr Gly Leu Val Ser
260 265

<210> 346

<211> 87

<212> PRT

<213> Human HLA-DRB

<400> 346

Phe Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn Gly Thr Glu
1 5 10 15

Arg Val Arg Phe Leu His Arg Gly Ile Tyr Asn Gln Glu Glu Asn Val
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly
35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Gln
50 55 60

Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly
65 70 75 80

Glu Ser Phe Thr Val Gln Arg
85

<210> 347

<211> 85

<212> PRT

<213> Human HLA-DRB

<400> 347

Cys Phe Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu His Arg Gly Ile Tyr Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu
50 55 60

Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala
65 70 75 80

Val Glu Ser Phe Thr
85

<210> 348

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 348

Cys Phe Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn Gly Thr
1 5 10 15

Glu Arg Val Arg Phe Leu His Arg Gly Ile Tyr Asn Gln Glu Glu Asn
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu
50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg
85

<210> 349

<211> 228

<212> PRT

<213> Swine SLA-DRA

<400> 349

Val Glu Asn His Val Ile Ile Gln Ala Glu Phe Tyr Leu Ser Pro Asp
1 5 10 15

Lys Ser Gly Glu Phe Met Phe Asp Phe Asp Gly Asp Glu Ile Phe His
20 25 30

Val Asp Met Glu Lys Arg Glu Thr Val Trp Arg Leu Glu Glu Phe Gly
35 40 45

His Phe Ala Ser Phe Glu Ala Gln Gly Ala Leu Ala Asn Ile Ala Val
50 55 60

Asp Lys Ala Asn Leu Glu Ile Leu Ile Lys Arg Ser Asn Asn Thr Pro
65 70 75 80

Asn Thr Asn Val Pro Pro Glu Val Thr Val Leu Ser Asp Lys Pro Val
85 90 95

Glu Leu Gly Glu Pro Asn Ile Leu Ile Cys Phe Ile Asp Lys Phe Ser
100 105 110

Pro Pro Val Val Asn Val Thr Trp Leu Arg Asn Gly Ser Pro Val Thr
115 120 125

Arg Gly Val Ser Glu Thr Val Phe Leu Pro Arg Glu Asp His Leu Phe
130 135 140

Arg Lys Phe His Tyr Leu Pro Phe Met Pro Ser Thr Glu Asp Val Tyr
145 150 155 160

Asp Cys Gln Val Glu His Trp Gly Leu Asp Lys Pro Leu Leu Lys His
165 170 175

Trp Glu Phe Glu Ala Arg Thr Pro Leu Pro Glu Thr Thr Glu Asn Thr
180 185 190

Val Cys Ala Leu Gly Leu Ile Val Ala Leu Val Gly Ile Ile Val Gly
195 200 205

Thr Val Leu Ile Ile Lys Gly Val Arg Lys Gly Asn Ala Thr Glu Arg
210 215 220

Arg Gly Pro Leu
225

<210> 350

<211> 228

<212> PRT

<213> Swine SLA-DRA

<400> 350

Val Glu Asn His Val Ile Ile Gln Ala Glu Phe Tyr Leu Ser Pro Asp
1 5 10 15

Lys Ser Gly Glu Phe Met Phe Asp Phe Asp Gly Asp Glu Ile Phe His
20 25 30

Val Asp Met Glu Lys Arg Glu Thr Val Trp Arg Leu Glu Glu Phe Gly
35 40 45

His Phe Ala Ser Phe Glu Ala Gln Gly Ala Leu Ala Asn Ile Ala Val
50 55 60

Asp Lys Ala Asn Leu Glu Ile Met Ile Lys Arg Ser Asn Asn Thr Pro

65 70 75 80

Asn Thr Asn Val Pro Pro Glu Val Thr Val Leu Ser Asp Lys Pro Val
 85 90 95

Glu Leu Gly Glu Pro Asn Ile Leu Ile Cys Phe Ile Asp Lys Phe Ser
 100 105 110

Pro Pro Val Val Asn Val Thr Trp Leu Arg Asn Gly Ser Pro Val Thr
 115 120 125

Arg Gly Val Ser Glu Thr Val Phe Leu Pro Arg Glu Asp His Leu Phe
 130 135 140

Arg Lys Phe His Tyr Leu Pro Phe Met Pro Ser Thr Glu Asp Val Tyr
145 150 155 160

Asp Cys Gln Val Glu His Trp Gly Leu Asp Lys Pro Leu Leu Lys His
 165 170 175

Trp Glu Phe Glu Ala Gln Thr Pro Leu Pro Glu Thr Thr Glu Asn Thr
 180 185 190

Val Cys Ala Leu Gly Leu Ile Val Ala Leu Val Gly Ile Ile Val Gly
 195 200 205

Thr Val Leu Ile Ile Lys Gly Val Arg Lys Gly Asn Ala Thr Glu His
 210 215 220

Arg Gly Pro Leu
225

<210> 351

<211> 228

<212> PRT

<213> Swine SLA-DRA

<400> 351

Val Glu Asn His Val Ile Ile Gln Ala Glu Phe Tyr Leu Ser Pro Asp
1 5 10 15

Lys Ser Gly Glu Phe Met Phe Asp Phe Asp Gly Asp Glu Ile Phe His
20 25 30

Val Asp Met Glu Lys Arg Glu Thr Val Trp Arg Leu Glu Glu Phe Gly
35 40 45

His Phe Ala Ser Phe Glu Ala Gln Gly Ala Leu Ala Asn Ile Ala Val
50 55 60

Asp Lys Ala Asn Leu Glu Ile Leu Ile Lys Arg Ser Asn Asn Thr Pro
65 70 75 80

Asn Thr Asn Val Pro Pro Glu Val Thr Val Leu Ser Asp Lys Pro Val
85 90 95

Glu Leu Gly Glu Pro Asn Ile Leu Ile Cys Phe Ile Asp Lys Phe Ser
100 105 110

Pro Pro Val Val Asn Val Thr Trp Leu Arg Asn Gly Ser Pro Val Thr
115 120 125

Arg Gly Val Ser Glu Thr Val Phe Leu Pro Arg Glu Asp His Leu Phe
130 135 140

Arg Lys Phe His Tyr Leu Pro Phe Met Pro Ser Thr Glu Asp Val Tyr
145 150 155 160

Asp Cys Gln Val Glu His Trp Gly Leu Asp Lys Pro Leu Leu Lys His
165 170 175

Trp Glu Phe Glu Ala Gln Thr Pro Leu Pro Glu Thr Thr Glu Asn Thr
180 185 190

Val Cys Ala Leu Gly Leu Ile Val Ala Leu Val Gly Ile Ile Val Gly
195 200 205

Thr Val Leu Ile Ile Lys Gly Val Arg Lys Gly Asn Ala Thr Glu His
210 215 220

Arg Gly Pro Leu
225

<210> 352

<211> 228

<212> PRT

<213> Swine SLA-DRA

<400> 352

Val Glu Asn His Val Ile Ile Gln Ala Glu Phe Tyr Leu Ser Pro Asp
1 5 10 15

Lys Ser Gly Glu Phe Met Phe Asp Phe Asp Gly Asp Glu Ile Phe His
20 25 30

Val Asp Met Glu Lys Arg Glu Thr Val Trp Arg Leu Glu Glu Phe Gly

35

40

45

His Phe Ala Ser Phe Glu Ala Gln Gly Ala Leu Ala Asn Ile Ala Val
50 55 60

Asp Lys Ala Asn Leu Glu Ile Leu Ile Lys Arg Ser Asn Asn Thr Pro
65 70 75 80

Asn Thr Asn Val Pro Pro Glu Val Thr Val Leu Ser Asp Lys Pro Val
85 90 95

Glu Leu Gly Glu Pro Asn Ile Leu Ile Cys Phe Ile Asp Lys Phe Ser
100 105 110

Pro Pro Val Val Asn Val Thr Trp Leu Arg Asn Gly Ser Pro Val Thr
115 120 125

Arg Gly Val Ser Glu Thr Val Phe Leu Pro Arg Glu Asp His Leu Phe
130 135 140

Arg Lys Phe His Tyr Leu Pro Phe Met Pro Ser Thr Glu Asp Val Tyr
145 150 155 160

Asp Cys Gln Val Glu His Trp Gly Leu Asp Lys Pro Leu Leu Lys His
165 170 175

Trp Glu Phe Glu Ala Gln Thr Pro Leu Pro Glu Thr Thr Glu Asn Thr
180 185 190

Val Cys Ala Leu Gly Leu Ile Val Ala Leu Val Gly Ile Ile Val Gly
195 200 205

Thr Val Leu Ile Ile Lys Gly Val Arg Lys Gly Asn Ala Thr Glu Arg
210 215 220

Arg Gly Pro Leu
225

<210> 353

<211> 228

<212> PRT

<213> Swine SLA-DRA

<400> 353

Val Glu Asn His Val Ile Ile Gln Ala Glu Phe Tyr Leu Ser Pro Asp
1 5 10 15

Lys Ser Gly Glu Phe Met Phe Asp Phe Asp Gly Asp Glu Ile Phe His
20 25 30

Val Asp Met Glu Lys Arg Glu Thr Val Trp Arg Leu Glu Glu Phe Gly
35 40 45

His Phe Ala Ser Phe Glu Ala Gln Gly Ala Leu Ala Asn Ile Ala Val
50 55 60

Asp Lys Ala Asn Leu Glu Ile Met Ile Lys Arg Ser Asn Asn Thr Pro
65 70 75 80

Asn Thr Asn Val Pro Pro Glu Val Thr Val Leu Ser Asp Lys Pro Val
85 90 95

Glu Leu Gly Glu Pro Asn Ile Leu Ile Cys Phe Ile Asp Lys Phe Ser
100 105 110

Pro Pro Val Val Asn Val Thr Trp Leu Arg Asn Gly Ser Pro Val Thr
115 120 125

Arg Gly Val Ser Glu Thr Val Phe Leu Pro Arg Glu Asp His Leu Phe
130 135 140

Arg Lys Phe His Tyr Leu Pro Phe Met Pro Ser Thr Glu Asp Val Tyr
145 150 155 160

Asp Cys Gln Val Glu His Trp Gly Leu Asp Lys Pro Leu Leu Lys His
165 170 175

Trp Glu Phe Glu Ala Gln Thr Pro Leu Pro Glu Thr Thr Glu Asn Thr
180 185 190

Val Cys Ala Leu Gly Leu Ile Val Ala Leu Val Gly Ile Ile Val Gly
195 200 205

Thr Val Leu Ile Ile Lys Gly Val Arg Lys Gly Asn Ala Thr Glu Arg
210 215 220

Arg Gly Pro Leu
225

<210> 354

<211> 228

<212> PRT

<213> Swine SLA-DRA

<400> 354

Val Glu Asn His Val Ile Ile Gln Ala Glu Phe Tyr Leu Ser Pro Asp

1 5 10 15

Lys Ser Gly Glu Phe Met Phe Asp Phe Asp Gly Asp Glu Ile Phe His
20 25 30

Val Asp Met Glu Lys Arg Glu Thr Val Trp Arg Leu Glu Glu Phe Gly
35 40 45

His Phe Ala Ser Phe Glu Ala Gln Gly Ala Leu Ala Asn Ile Ala Val
50 55 60

Asp Lys Ala Asn Leu Glu Ile Met Ile Lys Arg Ser Asn Asn Thr Pro
65 70 75 80

Asn Thr Asn Val Pro Pro Glu Val Thr Val Leu Ser Asp Lys Pro Val
85 90 95

Glu Leu Gly Glu Pro Asn Ile Leu Ile Cys Phe Ile Asp Lys Phe Ser
100 105 110

Pro Pro Val Val Asn Val Thr Trp Leu Arg Asn Gly Ser Pro Val Thr
115 120 125

Arg Gly Val Ser Glu Thr Val Phe Leu Pro Arg Glu Asp His Leu Phe
130 135 140

Arg Lys Phe His Tyr Leu Pro Phe Met Pro Ser Thr Glu Asp Val Tyr
145 150 155 160

Asp Cys Gln Val Glu His Trp Gly Leu Asp Lys Pro Leu Leu Lys His
165 170 175

Trp Glu Phe Glu Ala Gln Thr Pro Leu Pro Glu Thr Thr Glu Asn Thr
180 185 190

Val Cys Ala Leu Gly Leu Ile Val Ala Leu Val Gly Ile Ile Val Gly
195 200 205

Thr Val Leu Ile Ile Lys Gly Val Arg Lys Gly Asn Ala Thr Glu Arg
210 215 220

Arg Gly Pro Leu
225

<210> 355

<211> 237

<212> PRT

<213> Swine SLA-DRB

<400> 355

Arg Asp Ile Ala Gln His Phe Phe Phe Met Gly Lys Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Tyr Leu Gln Lys Tyr Leu Tyr
20 25 30

Asn Gly Glu Glu Phe Val Arg Phe Asp Ser Asp Leu Gly Glu Phe Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Lys Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Leu Met Glu Gln Lys Arg Ala Val Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Arg Ile Leu Asp Thr Phe Leu Val Pro Arg Arg Ala Glu
85 90 95

Pro Thr Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val Thr Gly Phe Tyr Pro Gly His Val Glu
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Ala Ala Gly Val Val Ser
130 135 140

Thr Gly Leu Ile Pro Asn Gly Asp Trp Thr Phe Gln Thr Met Val Met
145 150 155 160

Leu Glu Thr Val Pro Gln Ser Gly Glu Val Tyr Ser Cys Arg Val Glu
165 170 175

His Pro Ser Leu Thr Ser Pro Val Thr Val Glu Trp Arg Ala Arg Ser
180 185 190

Glu Ser Ala Gln Gly Lys Met Met Ser Gly Val Gly Gly Phe Val Leu
195 200 205

Gly Leu Leu Phe Ala Val Ala Gly Leu Phe Ile Tyr Phe Lys Asn Gln
210 215 220

Lys Gly Arg Pro Ala Leu Gln Pro Thr Gly Leu Leu Ser
225 230 235

<210> 356

<211> 237

<212> PRT

<213> Swine SLA-DRB

<400> 356

Arg Asp Thr Pro Pro His Phe Leu Phe Leu Gly Lys Ala Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Leu Leu Asp Arg Tyr Phe Tyr
20 25 30

Asn Gly Asp Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg
35 40 45

Glu Val Thr Glu Phe Gly Arg Pro Asp Ala Lys Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Phe Met Glu Gln Lys Arg Ala Glu Val Asp Thr Val Cys Arg
65 70 75 80

His Asn Tyr Glu Ile Leu Glu Thr Phe Leu Val Pro Arg Arg Ala Glu
85 90 95

Pro Arg Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val Thr Gly Thr Tyr Pro Gly His Val Glu
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Ala Ala Gly Val Val Ser
130 135 140

Thr Gly Leu Ile Pro Asn Gly Asp Trp Thr Phe Gln Thr Met Val Met
145 150 155 160

Leu Glu Thr Val Pro Gln Ser Gly Glu Val Tyr Thr Cys Arg Val Glu
165 170 175

His Pro Ser Leu Thr Ser Pro Val Thr Val Glu Trp Arg Ala Arg Ser
180 185 190

Glu Ser Ala Gln Gly Lys Met Met Ser Gly Ile Gly Gly Phe Val Leu
195 200 205

Gly Leu Leu Phe Ala Val Ala Gly Leu Phe Ile Tyr Phe Lys Asn Gln
210 215 220

Lys Gly Arg Pro Ala Leu Gln Pro Thr Gly Leu Leu Ser
225 230 235

<210> 357

<211> 237

<212> PRT

<213> Swine SLA-DRB

<400> 357

Arg Asp Thr Pro Pro His Phe Leu Phe Leu Gly Lys Phe Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Gln Val Arg Leu Leu Glu Arg Gln Tyr Tyr
20 25 30

Asn Gly Glu Glu Phe Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Lys Asn Tyr Asn Ser Gln

50

55

60

Lys Asp Leu Leu Glu Gln Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Arg Thr Ser Asp Thr Phe Leu Val Pro Arg Arg Ala Glu
85 90 95

Pro Arg Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val Thr Gly Phe Tyr Pro Gly His Val Glu
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Ala Ala Gly Val Val Ser
130 135 140

Thr Gly Leu Ile Pro Asn Gly Asp Trp Thr Phe Gln Thr Met Val Met
145 150 155 160

Leu Glu Thr Val Pro Gln Ser Gly Glu Val Tyr Ser Cys Arg Val Glu
165 170 175

His Pro Ser Leu Thr Ser Pro Val Thr Val Glu Trp Arg Ala Arg Ser
180 185 190

Glu Ser Ala Gln Gly Lys Met Met Ser Gly Ile Gly Gly Phe Val Leu
195 200 205

Gly Leu Leu Phe Ala Val Ala Gly Leu Phe Ile Tyr Phe Lys Asn Gln
210 215 220

Lys Gly Arg Pro Ala Leu Gln Pro Thr Gly Leu Leu Ser
225 230 235

<210> 358

<211> 237

<212> PRT

<213> Swine SLA-DRB

<400> 358

Arg Asp Thr Pro Pro His Phe Leu Tyr Leu Leu Lys Phe Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Leu Leu Glu Arg Gln Tyr Tyr
20 25 30

Asn Gly Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Val Ala Lys Asp Trp Asn Ser Gln
50 55 60

Lys Asp Leu Leu Glu Gln Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Arg Thr Ser Asp Thr Phe Leu Val Pro Arg Arg Ala Glu
85 90 95

Pro Arg Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val Thr Gly Phe Tyr Pro Gly His Val Glu
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Ala Ala Gly Val Val Ser
130 135 140

Thr Gly Leu Ile Pro Asn Gly Asp Trp Thr Phe Gln Thr Met Val Met
145 150 155 160

Leu Glu Thr Val Pro Gln Ser Gly Glu Val Tyr Ser Cys Arg Val Glu
165 170 175

His Pro Ser Leu Thr Ser Pro Val Thr Val Glu Trp Arg Ala Arg Ser
180 185 190

Glu Ser Ala Gln Gly Lys Met Met Ser Gly Val Gly Gly Phe Val Leu
195 200 205

Gly Leu Leu Phe Ala Val Ala Gly Leu Phe Ile Tyr Phe Lys Asn Gln
210 215 220

Lys Gly Arg Pro Ala Leu Gln Pro Thr Gly Leu Leu Ser
225 230 235

<210> 359

<211> 237

<212> PRT

<213> Swine SLA-DRB

<400> 359

Arg Asp Thr Pro Pro His Phe Leu His Leu Leu Lys Phe Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Leu Leu Glu Arg Gln Tyr Tyr

20 25 30

Asn Gly Glu Glu Phe Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Lys Asp Trp Asn Ser Gln
50 55 60

Lys Asp Leu Leu Glu Gln Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Arg Ile Leu Asp Thr Phe Leu Val Pro Arg Arg Ala Glu
85 90 95

Pro Thr Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val Thr Gly Phe Tyr Pro Gly His Val Glu
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Ala Ala Gly Val Val Ser
130 135 140

Thr Gly Leu Ile Pro Asn Gly Asp Trp Thr Phe Gln Thr Met Val Met
145 150 155 160

Leu Glu Thr Val Pro Gln Ser Gly Glu Val Tyr Ser Cys Arg Val Glu
165 170 175

His Pro Ser Leu Thr Ser Pro Val Thr Val Glu Trp Arg Ala Arg Ser
180 185 190

Glu Ser Ala Gln Gly Lys Met Met Ser Gly Ile Gly Gly Phe Val Leu
195 200 205

Gly Leu Leu Phe Ala Val Ala Gly Leu Phe Ile Tyr Phe Lys Asn Gln
210 215 220

Lys Gly Arg Pro Ala Leu Gln Pro Thr Gly Leu Leu Ser
225 230 235

<210> 360

<211> 237

<212> PRT

<213> Swine SLA-DRB

<400> 360

Arg Asp Ile Pro Pro His Phe Leu His Gln Leu Lys Phe Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Leu Leu Gln Arg Asn Cys Tyr
20 25 30

Asn Gly Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Lys Tyr Arg Asn Ser Gln
50 55 60

Lys Asp Leu Leu Glu Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg
65 70 75 80

His Asn Tyr Arg Ile Leu Asp Thr Phe Leu Val Pro Arg Arg Ala Glu
85 90 95

Pro Thr Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val Thr Gly Phe Tyr Pro Gly His Val Glu
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Ala Ala Gly Val Val Ser
130 135 140

Thr Gly Leu Ile Pro Asn Gly Asp Trp Thr Phe Gln Thr Met Val Met
145 150 155 160

Leu Glu Thr Val Pro Gln Ser Gly Glu Val Tyr Ser Cys Arg Val Glu
165 170 175

His Pro Ser Leu Thr Ser Pro Val Thr Val Glu Trp Arg Ala Arg Ser
180 185 190

Glu Ser Ala Gln Gly Lys Met Met Ser Gly Val Gly Gly Phe Val Leu
195 200 205

Gly Leu Leu Phe Ala Val Ala Gly Leu Phe Ile Tyr Phe Lys Asn Gln
210 215 220

Lys Gly Arg Pro Ala Leu Gln Pro Thr Gly Leu Leu Ser
225 230 235

<210> 361

<211> 237

<212> PRT

<213> Swine SLA-DRB

<400> 361

Arg Asp Thr Pro Pro His Phe Leu His Leu Val Lys His Glu Cys Arg
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Leu Leu Leu Asp Arg Tyr Phe Tyr
20 25 30

Asn Gly Glu Glu Phe Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Lys Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Ile Leu Glu Asp Ser Arg Ala Ser Val Asp Thr Tyr Cys Ile
65 70 75 80

His Asn Tyr Arg Ile Leu Asp Thr Phe Leu Val Pro Arg Arg Ala Glu
85 90 95

Pro Thr Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His
100 105 110

Asn Leu Leu Val Cys Ser Val Thr Gly Phe Tyr Pro Gly His Val Glu
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Ala Ala Gly Val Val Ser
130 135 140

Thr Gly Leu Ile Pro Asn Gly Asp Trp Thr Phe Gln Thr Met Val Met
145 150 155 160

Leu Glu Thr Val Pro Gln Ser Gly Glu Val Tyr Ser Cys Arg Val Glu
165 170 175

His Pro Ser Leu Thr Ser Pro Val Thr Val Glu Trp Arg Ala Arg Ser
180 185 190

Glu Ser Ala Gln Gly Lys Met Met Ser Gly Ile Gly Gly Phe Val Leu
195 200 205

Gly Leu Leu Phe Ala Val Ala Gly Leu Phe Ile Tyr Phe Lys Asn Gln
210 215 220

Lys Gly Arg Pro Ala Leu Gln Pro Thr Gly Leu Leu Ser
225 230 235

<210> 362

<211> 237

<212> PRT

<213> Swine SLA-DRB

<400> 362

Arg Asp Ile Pro Pro His Phe Phe Phe Met Gly Lys Ser Glu Cys His
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Tyr Leu Leu Lys Tyr Leu Tyr
20 25 30

Asn Gly Glu Glu Phe Val Arg Phe Asp Ser Asp Leu Gly Glu Tyr Arg
35 40 45

Glu Val Thr Glu Leu Gly Arg Pro Asp Ala Lys Tyr Trp Asn Ser Gln
50 55 60

Lys Asp Leu Leu Glu Gln Arg Arg Glu Lys Val Asp Thr Tyr Cys Arg

65 70 75 80

His Asn Tyr Gly Val Ser Asp Ser Phe Leu Val Pro Arg Arg Ala Glu
 85 90 95

Pro Thr Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His
 100 105 110

Asn Leu Leu Val Cys Ser Val Thr Gly Phe Tyr Pro Gly His Val Glu
 115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Ala Ala Gly Val Val Ser
 130 135 140

Thr Gly Leu Ile Pro Asn Gly Asp Trp Thr Phe Gln Thr Met Val Met
 145 150 155 160

Leu Glu Thr Val Pro Gln Ser Gly Glu Val Tyr Ser Cys Arg Val Glu
 165 170 175

His Pro Ser Leu Thr Ser Pro Val Thr Val Glu Trp Arg Ala Arg Ser
 180 185 190

Glu Ser Ala Gln Gly Lys Met Met Ser Gly Val Gly Gly Phe Val Leu
 195 200 205

Gly Leu Leu Phe Ala Val Ala Gly Leu Phe Ile Tyr Phe Lys Asn Gln
 210 215 220

Lys Gly Arg Pro Ala Leu Gln Pro Thr Gly Leu Leu Ser
 225 230 235

<210> 363

<211> 232

<212> PRT

<213> Swine SLA-DQA

<400> 363

Glu Asp Ile Ala Ala Asp His Val Ala Ser Tyr Gly Leu Asn Val Tyr
1 5 10 15

Gln Ser Tyr Gly Pro Ser Gly Tyr Tyr Thr His Glu Phe Asp Gly Asp
20 25 30

Glu Glu Phe Tyr Val Asp Leu Gly Lys Lys Glu Thr Val Trp Gln Leu
35 40 45

Pro Leu Phe Ser Lys Phe Arg Ser Phe Asp Pro Gln Gly Ala Leu Arg
50 55 60

Asn Ile Ala Thr Ala Lys His Asn Leu Asn Ile Leu Ile Lys Arg Ser
65 70 75 80

Asn Asn Thr Ala Ala Val Asn Gln Val Pro Glu Val Thr Val Phe Pro
85 90 95

Lys Ser Pro Val Met Leu Gly Gln Pro Asn Thr Leu Ile Cys His Val
100 105 110

Asp Asn Ile Phe Pro Pro Val Ile Asn Ile Thr Trp Leu Lys Asn Gly
115 120 125

His Ser Val Thr Glu Gly Phe Ser Glu Thr Ser Phe Leu Ser Lys Asn
130 135 140

Asp His Ser Phe Leu Lys Ile Ser Tyr Leu Thr Phe Leu Pro Ser Asp
145 150 155 160

Asp Asp Phe Tyr Asp Cys Lys Val Glu His Trp Gly Leu Asp Lys Pro
165 170 175

Leu Leu Lys His Trp Glu Pro Glu Ile Pro Ala Pro Met Ser Glu Leu
180 185 190

Thr Glu Thr Val Val Cys Ala Leu Gly Leu Ile Val Gly Leu Val Gly
195 200 205

Ile Val Val Gly Thr Val Phe Ile Ile Gln Gly Leu Arg Ser Gly Gly
210 215 220

Pro Ser Arg His Gln Gly Ser Leu
225 230

<210> 364

<211> 232

<212> PRT

<213> Swine SLA-DQA

<400> 364

Glu Asp Ile Ala Ala Asp His Val Ala Ser Tyr Gly Leu Asn Val Tyr
1 5 10 15

Gln Ser Tyr Gly Pro Ser Gly Tyr Tyr Thr His Glu Phe Asp Gly Asp
20 25 30

Glu Glu Phe Tyr Val Asp Leu Gly Lys Lys Glu Thr Val Trp Gln Leu

35 40 45

Pro Leu Phe Ser Lys Phe Arg Ser Phe Asp Pro Gln Gly Ala Leu Arg
50 55 60

Asn Ile Ala Thr Ala Lys His Asn Leu Asn Ile Leu Ile Lys Arg Ser
65 70 75 80

Asn Asn Thr Ala Ala Val Asn Gln Val Pro Glu Val Thr Val Phe Pro
85 90 95

Lys Ser Pro Val Met Leu Gly Gln Pro Asn Thr Leu Ile Cys His Val
100 105 110

Asp Asn Ile Phe Pro Pro Val Ile Asn Ile Thr Trp Leu Lys Asn Gly
115 120 125

His Ser Val Thr Glu Gly Phe Ser Glu Thr Ser Phe Leu Ser Lys Asn
130 135 140

Asp His Ser Phe Leu Lys Ile Ser Tyr Leu Thr Phe Leu Pro Ser Asp
145 150 155 160

Asp Asp Phe Tyr Asp Cys Lys Val Glu His Trp Gly Leu Asp Lys Pro
165 170 175

Leu Leu Lys His Trp Glu Pro Glu Ile Pro Ala Pro Met Ser Glu Leu
180 185 190

Thr Glu Thr Val Val Cys Ala Leu Gly Leu Ile Val Gly Leu Val Gly
195 200 205

Ile Val Val Gly Thr Val Phe Ile Ile Gln Gly Leu Arg Ser Gly Gly
210 215 220

Pro Ser Arg His Gln Gly Ser Leu
225 230

<210> 365

<211> 232

<212> PRT

<213> Swine SLA-DQA

<400> 365

Glu Asp Ile Ala Ala Asp His Val Ala Ser Tyr Gly Leu Asn Val Tyr
1 5 10 15

Gln Ser Tyr Gly Pro Ser Gly Tyr Tyr Thr His Glu Phe Asp Gly Asp
20 25 30

Glu Glu Phe Tyr Val Asp Leu Gly Lys Lys Glu Thr Val Trp Gln Leu
35 40 45

Pro Leu Phe Ser Lys Phe Arg Ser Phe Asp Pro Gln Gly Ala Leu Arg
50 55 60

Asn Ile Ala Thr Ala Lys His Asn Leu Asn Ile Leu Ile Lys Arg Ser
65 70 75 80

Asn Asn Thr Ala Ala Val Asn Gln Val Pro Glu Val Thr Val Phe Pro
85 90 95

Lys Ser Pro Val Met Leu Gly Gln Pro Asn Thr Leu Ile Cys His Val
100 105 110

Asp Asn Ile Phe Pro Pro Val Ile Asn Ile Thr Trp Leu Lys Asn Gly
115 120 125

His Ser Val Thr Glu Gly Phe Ser Glu Thr Ser Phe Leu Ser Lys Asn
130 135 140

Asp His Ser Phe Leu Lys Ile Ser Tyr Leu Thr Phe Leu Pro Ser Asp
145 150 155 160

Asp Asp Phe Tyr Asp Cys Lys Val Glu His Trp Gly Leu Asp Lys Pro
165 170 175

Leu Leu Lys His Trp Glu Pro Glu Ile Pro Ala Pro Met Ser Glu Leu
180 185 190

Thr Glu Thr Val Val Cys Ala Leu Gly Leu Ile Val Gly Leu Val Gly
195 200 205

Ile Val Val Gly Thr Val Phe Ile Ile Gln Gly Leu Arg Ser Gly Gly
210 215 220

Pro Ser Arg His Gln Gly Ser Leu
225 230

<210> 366

<211> 232

<212> PRT

<213> Swine SLA-DQA

<400> 366

Glu Asp Ile Ala Ala Asp His Val Ala Ser Tyr Gly Leu Asn Val Tyr

1 5 10 15

Gln Ser Tyr Gly Pro Ser Gly Tyr Tyr Thr His Glu Phe Asp Gly Asp
20 25 30

Glu Glu Phe Tyr Val Asp Leu Glu Lys Lys Glu Thr Val Trp Gln Leu
35 40 45

Pro Leu Phe Ser Lys Phe Thr Ser Phe Asp Pro Gln Gly Ala Leu Arg
50 55 60

Asn Ile Ala Thr Ala Lys His Asn Leu Asn Ile Leu Ile Lys Arg Ser
65 70 75 80

Asn Asn Thr Ala Ala Val Asn Gln Val Pro Glu Val Thr Val Phe Pro
85 90 95

Lys Ser Pro Val Met Leu Gly Gln Pro Asn Thr Leu Ile Cys His Val
100 105 110

Asp Asn Ile Phe Pro Pro Val Ile Asn Ile Thr Trp Leu Lys Asn Gly
115 120 125

His Ser Val Thr Glu Gly Phe Ser Glu Thr Ser Phe Leu Ser Lys Asn
130 135 140

Asp His Ser Phe Leu Lys Ile Ser Tyr Leu Thr Phe Leu Pro Ser Asp
145 150 155 160

Asp Asp Phe Tyr Asp Cys Lys Val Glu His Trp Gly Leu Asp Lys Pro
165 170 175

Leu Leu Lys His Trp Glu Pro Glu Ile Pro Ala Pro Met Ser Glu Leu
180 185 190

Thr Glu Thr Val Val Cys Ala Leu Gly Leu Ile Val Gly Leu Val Gly
195 200 205

Ile Val Val Gly Thr Val Phe Ile Ile Gln Gly Leu Arg Ser Gly Gly
210 215 220

Pro Ser Arg His Gln Gly Ser Leu
225 230

<210> 367

<211> 231

<212> PRT

<213> Swine SLA-DQA

<400> 367

Glu Asp Ile Ala Ala Asp His Val Ala Ser Tyr Gly Leu Asn Val Tyr
1 5 10 15

Gln Ser Tyr Gly Pro Arg Gly Tyr Tyr Thr His Glu Phe Asp Gly Asp
20 25 30

Glu Gln Phe Tyr Val Asp Leu Glu Lys Lys Glu Thr Val Trp Arg Leu
35 40 45

Pro Leu Phe Ser Glu Phe Thr Ser Phe Asp Pro Gln Gly Ala Leu Arg
50 55 60

Asn Ile Ala Thr Leu Lys His Asn Leu Asn Ile Val Thr Lys Arg Ser
65 70 75 80

Asn Asn Thr Ala Ala Val Asn Lys Val Pro Glu Val Thr Val Phe Ser
85 90 95

Lys Ser Pro Val Ile Leu Gly Gln Pro Asn Thr Leu Ile Cys His Val
100 105 110

Asp Ser Ile Phe Pro Pro Val Ile Asn Ile Thr Trp Leu Lys Asn Gly
115 120 125

His Ser Val Lys Gly Phe Ser Glu Thr Ser Phe Leu Ser Lys Asn Asp
130 135 140

His Ser Phe Leu Lys Ile Ser Tyr Leu Thr Phe Leu Pro Ser Asp Asp
145 150 155 160

Asp Phe Tyr Asp Cys Lys Val Glu His Trp Gly Leu Asp Lys Pro Leu
165 170 175

Leu Lys His Trp Glu Pro Glu Ile Pro Ala Pro Met Ser Glu Leu Thr
180 185 190

Glu Thr Val Val Cys Ala Leu Gly Leu Ile Val Gly Leu Val Gly Ile
195 200 205

Val Val Gly Thr Val Phe Ile Ile Gln Gly Leu Arg Ser Gly Gly Pro
210 215 220

Ser Arg His Gln Gly Ser Leu
225 230

<210> 368

<211> 231

<212> PRT

<213> Swine SLA-DQA

<400>. 368

Glu Asp Ile Ala Ala Asp His Val Ala Ser Tyr Gly Leu Asn Val Tyr
1 5 10 15

Gln Ser Tyr Gly Pro Arg Gly Tyr Phe Thr His Glu Phe Asp Gly Asp
20 25 30

Glu Gln Phe Tyr Val Asp Leu Glu Lys Lys Glu Thr Val Trp Arg Leu
35 40 45

Pro Leu Phe Ser Glu Phe Thr Ser Phe Asp Pro Gln Gly Ala Leu Arg
50 55 60

Asn Ile Ala Thr Leu Lys His Asn Leu Asn Ile Val Thr Lys Arg Ser
65 70 75 80

Asn Asn Thr Ala Ala Val Asn Lys Val Pro Glu Val Thr Val Phe Ser
85 90 95

Lys Ser Pro Val Ile Leu Gly Gln Pro Asn Thr Leu Ile Cys His Val
100 105 110

Asp Ser Ile Phe Pro Pro Val Ile Asn Ile Thr Trp Leu Lys Asn Gly
115 120 125

His Ser Val Lys Gly Phe Ser Glu Thr Ser Phe Leu Ser Lys Asn Asp
130 135 140

His Ser Phe Leu Lys Ile Ser Tyr Leu Thr Phe Leu Pro Ser Asp Asp
145 150 155 160

Asp Phe Tyr Asp Cys Lys Val Glu His Trp Gly Leu Asp Lys Pro Leu
165 170 175

Leu Lys His Trp Glu Pro Glu Ile Pro Ala Pro Met Ser Glu Leu Thr
180 185 190

Glu Thr Val Val Cys Ala Leu Gly Leu Ile Val Gly Leu Val Gly Ile
195 200 205

Val Val Gly Thr Val Phe Ile Ile Gln Gly Leu Arg Ser Gly Gly Pro
210 215 220

Ser Arg His Gln Gly Ser Leu
225 230

<210> 369

<211> 231

<212> PRT

<213> Swine SLA-DQA

<400> 369

Glu Asp Ile Ala Ala Asp His Val Ala Ser Tyr Gly Leu Asn Val Tyr
1 5 10 15

Gln Ser Tyr Gly Pro Ser Gly Tyr Phe Thr His Glu Phe Asp Gly Asp
20 25 30

Glu Glu Phe Tyr Val Asp Leu Glu Lys Lys Glu Thr Val Trp Arg Leu
35 40 45

Pro Leu Phe Ser Glu Phe Thr Ser Phe Asp Pro Gln Gly Ala Leu Arg

50 55 60

Asn Ile Ala Thr Leu Lys His Asn Leu Asn Ile Val Thr Lys Arg Ser
65 70 75 80

Asn Asn Thr Ala Ala Val Asn Gln Val Pro Glu Val Thr Val Phe Ser
85 90 95

Lys Ser Pro Val Ile Leu Gly Gln Pro Asn Thr Leu Ile Cys His Val
100 105 110

Asp Ser Ile Phe Pro Pro Val Ile Asn Ile Thr Trp Leu Lys Asn Gly
115 120 125

His Ser Val Lys Gly Phe Ser Glu Thr Ser Phe Leu Ser Lys Asn Asp
130 135 140

His Ser Phe Leu Lys Ile Ser Tyr Leu Thr Phe Leu Pro Ser Asp Asp
145 150 155 160

Asp Phe Tyr Asp Cys Lys Val Glu His Trp Gly Leu Asp Lys Pro Leu
165 170 175

Leu Lys His Trp Glu Pro Glu Ile Pro Ala Pro Met Ser Glu Leu Thr
180 185 190

Glu Thr Val Val Cys Ala Leu Gly Leu Ile Val Gly Leu Val Gly Ile
195 200 205

Val Val Gly Thr Val Phe Ile Ile Gln Gly Leu Leu Ser Gly Gly Pro
210 215 220

Ser Arg His Gln Gly Ser Leu
225 230

<210> 370

<211> 230

<212> PRT

<213> Swine SLA-DQB

<400> 370

Gly Arg Asp Ser Pro Gln Asp Phe Val Val Gln Phe Lys Gly Glu Cys
1 5 10 15

Tyr Phe Tyr Asn Gly Thr Gln Arg Val Trp Ser Val Asp Arg Tyr Ile
20 25 30

Tyr Asn Gln Glu Glu Phe Leu Arg Phe Asp Ser Asp Met Gly Glu Tyr
35 40 45

Arg Ala Val Thr Pro Leu Gly Arg Pro Asp Ala Phe Tyr Leu Asn Gly
50 55 60

Gln Lys Glu Ala Leu Glu Gln Lys Arg Ala Glu Leu Asp Thr Val Cys
65 70 75 80

Lys His Asn Tyr Gln Ile Glu Glu Gly Thr Thr Leu Gln Arg Arg Val
85 90 95

Gln Pro Thr Val Thr Ile Ser Pro Ser Lys Ala Glu Ala Leu Asn His
100 105 110

His Asn Leu Leu Val Cys Ala Val Thr Asp Phe Tyr Pro Ser Gln Val
115 120 125

Lys Val Gln Trp Phe Arg Asn Gly Gln Glu Glu Thr Ala Gly Val Val
130 135 140

Ser Thr Pro Leu Ile Arg Asn Gly Asp Trp Thr Tyr Gln Val Leu Val
145 150 155 160

Met Leu Glu Met Asn Leu Gln Arg Gly Asp Val Tyr Thr Cys Arg Val
165 170 175

Glu His Ser Ser Leu Gln Ser Pro Ile Leu Val Glu Trp Arg Ala Gln
180 185 190

Ser Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val
195 200 205

Leu Gly Leu Ile Phe Leu Gly Leu Gly Leu Phe Ile Arg His Arg Ser
210 215 220

Gln Lys Gly Leu Val Arg
225 230

<210> 371

<211> 230

<212> PRT

<213> Swine SLA-DQB

<400> 371

Gly Arg Asp Ser Pro Gln Asp Phe Val Phe Gln Phe Lys Gly Glu Cys
1 5 10 15

Tyr Phe Tyr Asn Gly Thr Gln Arg Val Trp Ser Val Asp Arg Tyr Ile

20

25

30

Tyr Asn Gln Glu Glu Phe Leu Arg Phe Asp Ser Asp Met Gly Glu Tyr
35 40 45

Arg Ala Val Thr Pro Leu Gly Arg Pro Asp Ala Asp Tyr Leu Asn Gly
50 55 60

Gln Lys Glu Ala Leu Glu Gln Lys Arg Ala Glu Leu Asp Thr Val Cys
65 70 75 80

Lys His Asn Tyr Gln Ile Glu Glu Gly Thr Thr Leu Gln Arg Arg Val
85 90 95

Gln Pro Thr Val Thr Ile Ser Pro Ser Lys Ala Glu Ala Leu Asn His
100 105 110

His Asn Leu Leu Val Cys Ala Val Thr Asp Phe Tyr Pro Ser Gln Val
115 120 125

Lys Val Gln Trp Phe Arg Asn Gly Gln Glu Glu Thr Ala Gly Val Val
130 135 140

Ser Thr Pro Leu Ile Arg Asn Gly Asp Trp Thr Tyr Gln Val Leu Val
145 150 155 160

Met Leu Glu Met Asn Leu Gln Arg Gly Asp Val Tyr Thr Cys Arg Val
165 170 175

Glu His Ser Ser Leu Gln Ser Pro Ile Leu Val Glu Trp Arg Ala Gln
180 185 190

Ser Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val
195 200 205

Leu Gly Leu Ile Phe Leu Gly Leu Gly Leu Phe Ile Arg His Arg Ser
210 215 220

Gln Lys Gly Leu Val Arg
225 230

<210> 372

<211> 230

<212> PRT

<213> Swine SLA-DQB

<400> 372

Gly Arg Asp Ser Pro Gln Asp Phe Val Tyr Gln Phe Lys Phe Glu Cys
1 5 10 15

Tyr Phe Phe Asn Gly Thr Gln Arg Val Arg Gly Val Ala Arg Trp Val
20 25 30

Tyr Asn Gln Glu Glu His Val Arg Phe Asp Ser Asp Val Gly Glu Phe
35 40 45

Arg Ala Val Thr Pro Leu Gly Arg Pro Thr Ala Asp Tyr Trp Asn Gly
50 55 60

Gln Lys Asp Val Leu Glu Gln Lys Arg Ala Glu Val Asp Thr Val Cys
65 70 75 80

Lys His Asn Tyr Gln Ile Glu Glu Gly Thr Thr Leu Gln Arg Arg Val
85 90 95

Gln Pro Thr Val Thr Ile Ser Pro Ser Lys Ala Glu Ala Leu Asn His
100 105 110

His Asn Leu Leu Val Cys Ala Val Thr Asp Phe Tyr Pro Ser Gln Val
115 120 125

Lys Val Gln Trp Asn Arg Asn Gly Gln Glu Glu Thr Ala Gly Val Val
130 135 140

Ser Thr Pro Leu Ile Arg Asn Gly Asp Trp Thr Tyr Gln Val Leu Val
145 150 155 160

Met Leu Glu Met Asn Leu Gln Arg Gly Asp Val Tyr Thr Cys Arg Val
165 170 175

Glu His Ser Ser Leu Gln Asn Pro Ile Leu Val Glu Trp Arg Ala Gln
180 185 190

Ser Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val
195 200 205

Leu Gly Leu Ile Phe Leu Gly Leu Gly Leu Phe Ile Arg His Arg Ser
210 215 220

Gln Lys Gly Leu Val Arg
225 230

<210> 373

<211> 230

<212> PRT

<213> Swine SLA-DQB

<400> 373

Gly Arg Asp Ser Pro Gln Asp Phe Val Tyr Gln Phe Lys Phe Glu Cys
1 5 10 15

Tyr Phe Tyr Asn Gly Thr Gln Arg Val Arg Leu Val Ala Arg Trp Val
20 25 30

Tyr Asn Arg Glu Glu His Val Arg Phe Asp Ser Asp Val Gly Glu Phe
35 40 45

Arg Ala Val Thr Pro Leu Gly Arg Pro Asp Ala Asp Tyr Trp Asn Gly
50 55 60

Gln Lys Glu Val Leu Glu Gln Lys Arg Ala Glu Leu Asp Thr Val Cys
65 70 75 80

Lys His Asn Tyr Gln Ile Glu Glu Gly Thr Thr Leu Gln Arg Arg Val
85 90 95

Gln Pro Thr Val Thr Ile Ser Pro Ser Lys Ala Glu Ala Leu Asn His
100 105 110

His Asn Leu Leu Val Cys Ala Val Thr Asp Phe Tyr Pro Ser Gln Val
115 120 125

Lys Val Gln Trp Phe Arg Asn Gly Gln Glu Glu Thr Ala Gly Val Val
130 135 140

Ser Thr Pro Leu Ile Arg Asn Gly Asp Trp Thr Tyr Gln Val Leu Val
145 150 155 160

Met Leu Glu Met Asn Leu Gln Arg Gly Asp Val Tyr Thr Cys Arg Val
165 170 175

Glu His Ser Ser Leu Gln Ser Pro Ile Leu Val Glu Trp Arg Ala Gln
180 185 190

Ser Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val
195 200 205

Leu Gly Leu Ile Phe Leu Gly Leu Gly Leu Phe Ile Arg His Arg Ser
210 215 220

Gln Lys Gly Leu Val Arg
225 230

<210> 374

<211> 230

<212> PRT

<213> Swine SLA-DQB

<400> 374

Gly Arg Asp Ser Pro Gln Asp Phe Val Tyr Gln Phe Lys Phe Glu Cys
1 5 10 15

Tyr Phe Phe Asn Gly Thr Gln Arg Val Arg Leu Val Thr Arg Tyr Ile
20 25 30

Tyr Asn Gln Glu Glu Tyr Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr
35 40 45

Arg Ala Val Thr Pro Leu Gly Arg Pro Ala Ala Asp Tyr Trp Asn Ser
50 55 60

Gln Lys Asp Ile Leu Glu Gln Thr Arg Ala Glu Leu Asp Thr Val Cys

65 70 75 80

Lys His Asn Tyr Gln Ile Glu Glu Gly Thr Thr Leu Gln Arg Arg Val
 85 90 95

Gln Pro Thr Val Thr Ile Ser Pro Ser Lys Ala Glu Ala Leu Asn His
 100 105 110

His Asn Leu Leu Val Cys Ala Val Thr Asp Phe Tyr Pro Ser Gln Val
 115 120 125

Lys Val Gln Trp Phe Arg Asn Gly Gln Glu Glu Thr Ala Gly Val Val
 130 135 140

Ser Thr Pro Leu Ile Arg Asn Gly Asp Trp Thr Tyr Gln Val Leu Val
 145 150 155 160

Met Leu Glu Met Asn Leu Gln Arg Gly Asp Val Tyr Thr Cys Arg Val
 165 170 175

Glu His Ser Ser Leu Gln Ser Pro Ile Leu Val Glu Trp Arg Ala Gln
 180 185 190

Ser Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val
 195 200 205

Leu Gly Leu Ile Phe Leu Gly Leu Gly Leu Phe Ile Arg His Arg Ser
 210 215 220

Gln Lys Gly Leu Val Arg
 225 230

<210> 375

<211> 230

<212> PRT

<213> Swine SLA-DQB

<400> 375

Gly Arg Asp Ser Pro Gln Asp Phe Val Tyr Gln Phe Lys Phe Glu Cys
1 5 10 15

Tyr Phe Phe Asn Gly Thr Gln Arg Val Arg Leu Leu Thr Arg Tyr Ile
20 25 30

Tyr Asn Gln Glu Glu His Val Arg Phe Asp Ser Asn Val Gly Glu Tyr
35 40 45

Arg Ala Val Thr Pro Leu Gly Arg Pro Asp Ala Asp Tyr Trp Asn Gly
50 55 60

Gln Lys Asp Val Leu Glu Gln Thr Arg Ala Glu Leu Asp Thr Val Cys
65 70 75 80

Lys His Asn Tyr Gln Ile Glu Glu Gly Thr Thr Leu Gln Arg Arg Val
85 90 95

Gln Pro Thr Val Thr Ile Ser Pro Ser Lys Ala Glu Ala Leu Asn His
100 105 110

His Asn Leu Leu Val Cys Ala Val Thr Asp Phe Tyr Pro Ser Gln Val
115 120 125

Lys Val Gln Trp Phe Arg Asn Gly Gln Glu Glu Thr Ala Gly Val Val
130 135 140

Ser Thr Pro Leu Ile Arg Asn Gly Asp Trp Thr Tyr Gln Val Leu Val
145 150 155 160

Met Leu Glu Met Asn Leu Gln Arg Gly Asp Val Tyr Thr Cys Arg Val
165 170 175

Glu His Ser Ser Leu Gln Ser Pro Ile Leu Val Glu Trp Arg Ala Gln
180 185 190

Ser Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val
195 200 205

Leu Gly Leu Ile Phe Leu Gly Leu Gly Leu Phe Ile Arg His Arg Ser
210 215 220

Gln Lys Gly Leu Val Arg
225 230

<210> 376

<211> 230

<212> PRT

<213> Swine SLA-DQB

<400> 376

Gly Arg Asp Ser Pro Gln Asp Phe Val Tyr Gln Phe Lys Gly Glu Cys
1 5 10 15

Tyr Phe Phe Asn Gly Thr Gln Arg Val Arg His Val Thr Arg Tyr Ile
20 25 30

Tyr Asn Gln Glu Glu His Val Arg Phe Asp Ser Asp Val Gly Glu Phe

35

40

45

Arg Ala Val Thr Pro Leu Gly Arg Pro Asp Ala Asp Tyr Trp Asn Gly
50 55 60

Gln Lys Asp Phe Leu Glu Gln Thr Arg Ala Glu Leu Asp Thr Val Cys
65 70 75 80

Lys His Asn Tyr Gln Ile Glu Glu Gly Thr Thr Leu Gln Arg Arg Val
85 90 95

Gln Pro Thr Val Thr Ile Ser Pro Ser Lys Ala Glu Ala Leu Asn His
100 105 110

His Asn Leu Leu Val Cys Ala Val Thr Asp Phe Tyr Pro Ser Gln Val
115 120 125

Lys Val Gln Trp Phe Arg Asn Gly Gln Glu Glu Thr Ala Gly Val Val
130 135 140

Ser Thr Pro Leu Ile Arg Asn Gly Asp Trp Thr Tyr Gln Val Leu Val
145 150 155 160

Met Leu Glu Met Asn Leu Gln Arg Gly Asp Val Tyr Thr Cys Arg Val
165 170 175

Glu His Ser Ser Leu Gln Ser Pro Ile Leu Val Glu Trp Arg Ala Gln
180 185 190

Ser Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val
195 200 205

Leu Gly Leu Ile Phe Leu Gly Leu Gly Leu Phe Ile Arg His Arg Ser
210 215 220

Gln Lys Gly Leu Val Arg
225 230

<210> 377

<211> 230

<212> PRT

<213> Swine SLA-DQB

<400> 377

Gly Arg Asp Ser Pro Gln Asp Phe Val Phe Gln Phe Lys Gly Glu Cys
1 5 10 15

Tyr Phe Tyr Asn Gly Thr Gln Arg Val Arg Gly Val Ala Arg Tyr Ile
20 25 30

Tyr Asn Gln Glu Glu His Leu Arg Phe Asp Ser Asp Val Gly Glu Phe
35 40 45

Arg Ala Val Thr Pro Leu Gly Arg Pro Glu Ala Asp Ser Trp Asn Ser
50 55 60

Gln Lys Asp Val Leu Glu Gln Met Arg Ala Glu Val Asp Arg Val Cys
65 70 75 80

Lys His Asn Tyr Gln Ile Glu Glu Gly Thr Thr Leu Gln Arg Arg Val
85 90 95

Gln Pro Thr Val Thr Ile Ser Pro Ser Lys Ala Glu Ala Leu Asn His
100 105 110

His Asn Leu Leu Val Cys Ala Val Thr Asp Phe Tyr Pro Ser Gln Val
115 120 125

Lys Val Gln Trp Phe Arg Asn Gly Gln Glu Glu Thr Ala Gly Val Val
130 135 140

Ser Thr Pro Leu Ile Arg Asn Gly Asp Trp Thr Tyr Gln Val Leu Val
145 150 155 160

Met Leu Glu Met Asn Leu Gln Arg Gly Asp Val Tyr Thr Cys Arg Val
165 170 175

Glu His Ser Ser Leu Gln Asn Pro Ile Leu Val Glu Trp Arg Ala Gln
180 185 190

Ser Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val
195 200 205

Leu Gly Leu Ile Phe Leu Gly Leu Gly Leu Phe Ile Arg His Arg Ser
210 215 220

Gln Lys Gly Leu Val Arg
225 230

<210> 378

<211> 1344

<212> DNA

<213> Human Immunoglobulin-Like Transcript

<220>

<221> CDS

<222> (1)..(1344)

<223>

<400> 378

atg atc ccc acc ttc acg gct ctg ctc tgc ctc ggg ctg agt ctg ggc 48
Met Ile Pro Thr Phe Thr Ala Leu Leu Cys Leu Gly Leu Ser Leu Gly
1 5 10 15

ccc agg acc cac atg cag gca ggg ccc ctc ccc aaa ccc acc ctc tgg 96
Pro Arg Thr His Met Gln Ala Gly Pro Leu Pro Lys Pro Thr Leu Trp
20 25 30

gct gag cca ggc tct gtg atc agc tgg ggg aac tct gtg acc atc tgg 144
Ala Glu Pro Gly Ser Val Ile Ser Trp Gly Asn Ser Val Thr Ile Trp
35 40 45

tgt cag ggg acc ctg gag gct cgg gag tac cgt ctg gat aaa gag gaa 192
Cys Gln Gly Thr Leu Glu Ala Arg Glu Tyr Arg Leu Asp Lys Glu Glu
50 55 60

agc cca gca ccc tgg gac aga cag aac cca ctg gag ccc aag aac aag 240
Ser Pro Ala Pro Trp Asp Arg Gln Asn Pro Leu Glu Pro Lys Asn Lys
65 70 75 80

gcc aga ttc tcc atc cca tcc atg aca gag gac tat gca ggg aga tac 288
Ala Arg Phe Ser Ile Pro Ser Met Thr Glu Asp Tyr Ala Gly Arg Tyr
85 90 95

cgc tgt tac tat cgc agc cct gta ggc tgg tca cag ccc agt gac ccc 336
Arg Cys Tyr Tyr Arg Ser Pro Val Gly Trp Ser Gln Pro Ser Asp Pro
100 105 110

ctg gag ctg gtg atg aca gga gcc tac agt aaa ccc acc ctt tca gcc 384
Leu Glu Leu Val Met Thr Gly Ala Tyr Ser Lys Pro Thr Leu Ser Ala
115 120 125

ctg ccg agt cct ctt gtg acc tca gga aag agc gtg acc ctg ctg tgt 432
Leu Pro Ser Pro Leu Val Thr Ser Gly Lys Ser Val Thr Leu Leu Cys
130 135 140

cag tca cgg agc cca atg gac act ttc ctt ctg atc aag gag cgg gca 480
Gln Ser Arg Ser Pro Met Asp Thr Phe Leu Leu Ile Lys Glu Arg Ala

145 150 155 160
gcc cat ccc cta ctg cat ctg aga tca gag cac gga gct cag cag cac 528
Ala His Pro Leu Leu His Leu Arg Ser Glu His Gly Ala Gln Gln His
 165 170 175

cag gct gaa ttc ccc atg agt cct gtg acc tca gtg cac ggg ggg acc 576
Gln Ala Glu Phe Pro Met Ser Pro Val Thr Ser Val His Gly Gly Thr
 180 185 190

tac agg tgc ttc agc tca cac ggc ttc tcc cac tac ctg ctg tca cac 624
Tyr Arg Cys Phe Ser Ser His Gly Phe Ser His Tyr Leu Leu Ser His
 195 200 205

ccc agt gac ccc ctg gag ctc ata gtc tca gga tcc ttg gag ggt ccc 672
Pro Ser Asp Pro Leu Glu Leu Ile Val Ser Gly Ser Leu Glu Gly Pro
 210 215 220

agg ccc tca ccc aca agg tcc gtc tca aca gct gca ggc cct gag gac 720
Arg Pro Ser Pro Thr Arg Ser Val Ser Thr Ala Ala Gly Pro Glu Asp
225 230 235 240

cag ccc ctc atg cct aca ggg tca gtc ccc cac agt ggt ctg aga agg 768
Gln Pro Leu Met Pro Thr Gly Ser Val Pro His Ser Gly Leu Arg Arg
 245 250 255

cac tgg gag gta ctg atc ggg gtc ttg gtg gtc tcc atc ctg ctt ctc 816
His Trp Glu Val Leu Ile Gly Val Leu Val Val Ser Ile Leu Leu Leu
 260 265 270

tcc ctc ctc ctc ttc ctc ctc ctc caa cac tgg cgt cag gga aaa cac 864
Ser Leu Leu Phe Leu Leu Leu Gln His Trp Arg Gln Gly Lys His
 275 280 285

agg aca ttg gcc cag aga cag gct gat ttc caa cgt cct cca ggg gct 912
Arg Thr Leu Ala Gln Arg Gln Ala Asp Phe Gln Arg Pro Pro Gly Ala
 290 295 300

gcc gag cca gag ccc aag gac ggg ggc cta cag agg agg tcc agc cca 960
Ala Glu Pro Glu Pro Lys Asp Gly Gly Leu Gln Arg Arg Ser Ser Pro
305 310 315 320

gct gct gac gtc cag gga gaa aac ttc tgt gct gcc gtg aag aac aca 1008
Ala Ala Asp Val Gln Gly Glu Asn Phe Cys Ala Ala Val Lys Asn Thr
 325 330 335

cag cct gag gac ggg gtg gaa atg gac act cgg agc cca cac gat gaa 1056
Gln Pro Glu Asp Gly Val Glu Met Asp Thr Arg Ser Pro His Asp Glu
340 345 350

gac ccc cag gca gtg acg tat gcc aag gtg aaa cac tcc aga cct agg 1104
Asp Pro Gln Ala Val Thr Tyr Ala Lys Val Lys His Ser Arg Pro Arg
355 360 365

aga gaa atg gcc tct cct ccc tcc cca ctg tct ggg gaa ttc ctg gac 1152
Arg Glu Met Ala Ser Pro Pro Ser Pro Leu Ser Gly Glu Phe Leu Asp
370 375 380

aca aag gac aga cag gca gaa gag gac aga cag atg gac act gag gct 1200
Thr Lys Asp Arg Gln Ala Glu Glu Asp Arg Gln Met Asp Thr Glu Ala
385 390 395 400

gct gca tct gaa gcc ccc cag gat gtg acc tac gcc cag ctg cac agc 1248
Ala Ala Ser Glu Ala Pro Gln Asp Val Thr Tyr Ala Gln Leu His Ser
405 410 415

ttt acc ctc aga cag aag gca act gag cct cct cca tcc cag gaa ggg 1296
Phe Thr Leu Arg Gln Lys Ala Thr Glu Pro Pro Pro Ser Gln Glu Gly
420 425 430

gcc tct cca gct gag ccc agt gtc tat gcc act ctg gcc atc cac taa 1344
Ala Ser Pro Ala Glu Pro Ser Val Tyr Ala Thr Leu Ala Ile His
435 440 445

<210> 379

<211> 447

<212> PRT

<213> Human Immunoglobulin-Like Transcript

<400> 379

Met Ile Pro Thr Phe Thr Ala Leu Leu Cys Leu Gly Leu Ser Leu Gly
1 5 10 15

Pro Arg Thr His Met Gln Ala Gly Pro Leu Pro Lys Pro Thr Leu Trp
20 25 30

Ala Glu Pro Gly Ser Val Ile Ser Trp Gly Asn Ser Val Thr Ile Trp
35 40 45

Cys Gln Gly Thr Leu Glu Ala Arg Glu Tyr Arg Leu Asp Lys Glu Glu
50 55 60

Ser Pro Ala Pro Trp Asp Arg Gln Asn Pro Leu Glu Pro Lys Asn Lys
65 70 75 80

Ala Arg Phe Ser Ile Pro Ser Met Thr Glu Asp Tyr Ala Gly Arg Tyr
85 90 95

Arg Cys Tyr Tyr Arg Ser Pro Val Gly Trp Ser Gln Pro Ser Asp Pro
100 105 110

Leu Glu Leu Val Met Thr Gly Ala Tyr Ser Lys Pro Thr Leu Ser Ala
115 120 125

Leu Pro Ser Pro Leu Val Thr Ser Gly Lys Ser Val Thr Leu Leu Cys
130 135 140

Gln Ser Arg Ser Pro Met Asp Thr Phe Leu Leu Ile Lys Glu Arg Ala
145 150 155 160

Ala His Pro Leu Leu His Leu Arg Ser Glu His Gly Ala Gln Gln His
165 170 175

Gln Ala Glu Phe Pro Met Ser Pro Val Thr Ser Val His Gly Gly Thr
180 185 190

Tyr Arg Cys Phe Ser Ser His Gly Phe Ser His Tyr Leu Leu Ser His

195 200 205

Pro Ser Asp Pro Leu Glu Leu Ile Val Ser Gly Ser Leu Glu Gly Pro
210 215 220

Arg Pro Ser Pro Thr Arg Ser Val Ser Thr Ala Ala Gly Pro Glu Asp
225 230 235 240

Gln Pro Leu Met Pro Thr Gly Ser Val Pro His Ser Gly Leu Arg Arg
245 250 255

His Trp Glu Val Leu Ile Gly Val Leu Val Val Ser Ile Leu Leu Leu
260 265 270

Ser Leu Leu Leu Phe Leu Leu Leu Gln His Trp Arg Gln Gly Lys His
275 280 285

Arg Thr Leu Ala Gln Arg Gln Ala Asp Phe Gln Arg Pro Pro Gly Ala
290 295 300

Ala Glu Pro Glu Pro Lys Asp Gly Gly Leu Gln Arg Arg Ser Ser Pro
305 310 315 320

Ala Ala Asp Val Gln Gly Glu Asn Phe Cys Ala Ala Val Lys Asn Thr
325 330 335

Gln Pro Glu Asp Gly Val Glu Met Asp Thr Arg Ser Pro His Asp Glu
340 345 350

Asp Pro Gln Ala Val Thr Tyr Ala Lys Val Lys His Ser Arg Pro Arg
355 360 365

Arg Glu Met Ala Ser Pro Pro Ser Pro Leu Ser Gly Glu Phe Leu Asp
370 375 380

Thr Lys Asp Arg Gln Ala Glu Glu Asp Arg Gln Met Asp Thr Glu Ala
385 390 395 400

Ala Ala Ser Glu Ala Pro Gln Asp Val Thr Tyr Ala Gln Leu His Ser
 405 410 415

Phe Thr Leu Arg Gln Lys Ala Thr Glu Pro Pro Pro Ser Gln Glu Gly
 420 425 430

Ala Ser Pro Ala Glu Pro Ser Val Tyr Ala Thr Leu Ala Ile His
 435 440 445

<210> 380

<211> 1794

<212> DNA

<213> Human Immunoglobulin-Like Transcript

<220>

<221> CDS

<222> (1)..(1794)

<223>

<400> 380

atg acc ccc atc gtc aca gtc ctg atc tgt ctc ggg ctg agt ctg ggc 48
Met Thr Pro Ile Val Thr Val Leu Ile Cys Leu Gly Leu Ser Leu Gly
1 5 10 15

ccc agg acc cgc gtg cag aca ggg acc atc ccc aag ccc acc ctg tgg 96
Pro Arg Thr Arg Val Gln Thr Gly Thr Ile Pro Lys Pro Thr Leu Trp
 20 25 30

gct gag cca gac tct gtg atc acc cag ggg agt ccc gtc acc ctc agt 144
Ala Glu Pro Asp Ser Val Ile Thr Gln Gly Ser Pro Val Thr Leu Ser
35 40 45

tgt cag ggg agc ctt gaa gcc cag gag tac cgt cta tat agg gag aaa 192
Cys Gln Gly Ser Leu Glu Ala Gln Glu Tyr Arg Leu Tyr Arg Glu Lys
50 55 60

aaa tca gca tct tgg att aca cgg ata cga cca gag ctt gtg aag aac 240
Lys Ser Ala Ser Trp Ile Thr Arg Ile Arg Pro Glu Leu Val Lys Asn
65 70 75 80

ggc cag ttc cac atc cca tcc atc acc tgg gaa cac aca ggg cga tat 288
Gly Gln Phe His Ile Pro Ser Ile Thr Trp Glu His Thr Gly Arg Tyr
85 90 95

ggc tgt cag tat tac agc cgc gct cgg tgg tct gag ctc agt gac ccc 336
Gly Cys Gln Tyr Tyr Ser Arg Ala Arg Trp Ser Glu Leu Ser Asp Pro
100 105 110

ctg gtg ctg gtg atg aca gga gcc tac cca aaa ccc acc ctc tca gcc 384
Leu Val Leu Val Met Thr Gly Ala Tyr Pro Lys Pro Thr Leu Ser Ala
115 120 125

cag ccc agc cct gtg gtg acc tca gga gga agg gtg acc ctc cag tgt 432
Gln Pro Ser Pro Val Val Thr Ser Gly Gly Arg Val Thr Leu Gln Cys
130 135 140

gag tca cag gtg gca ttt ggc ggc ttc att ctg tgt aag gaa gga gaa 480
Glu Ser Gln Val Ala Phe Gly Gly Phe Ile Leu Cys Lys Glu Gly Glu
145 150 155 160

gat gaa cac cca caa tgc ctg aac tcc cag ccc cat gcc cgt ggg tcg 528
Asp Glu His Pro Gln Cys Leu Asn Ser Gln Pro His Ala Arg Gly Ser
165 170 175

tcc cgc gcc atc ttc tcc gtg ggc ccc gtg agc ccg aat cgc agg tgg 576
Ser Arg Ala Ile Phe Ser Val Gly Pro Val Ser Pro Asn Arg Arg Trp
180 185 190

tcg cac agg tgc tat ggt tat gac ttg aac tct ccc tat gtg tgg tct 624
Ser His Arg Cys Tyr Gly Tyr Asp Leu Asn Ser Pro Tyr Val Trp Ser
195 200 205

tca ccc agt gat ctc ctg gag ctc ctg gtc cca ggt gtt tct aag aag 672

Ser Pro Ser Asp Leu Leu Glu Leu Leu Val Pro Gly Val Ser Lys Lys
210 215 220

cca tca ctc tca gtg cag ccg ggt cct gtc atg gcc cct ggg gaa agc 720
Pro Ser Leu Ser Val Gln Pro Gly Pro Val Met Ala Pro Gly Glu Ser
225 230 235 240

ctg acc ctc cag tgt gtc tct gat gtc ggc tat gac aga ttt gtt ctg 768
Leu Thr Leu Gln Cys Val Ser Asp Val Gly Tyr Asp Arg Phe Val Leu
245 250 255

tac aag gag ggg gaa cgt gac ctt cgc cag ctc cct ggc cgg cag ccc 816
Tyr Lys Glu Gly Glu Arg Asp Leu Arg Gln Leu Pro Gly Arg Gln Pro
260 265 270

cag gct ggg ctc tcc cag gcc aac ttc acc ctg ggc cct gtg agc cgc 864
Gln Ala Gly Leu Ser Gln Ala Asn Phe Thr Leu Gly Pro Val Ser Arg
275 280 285

tcc tac ggg ggc cag tac aga tgc tac ggt gca cac aac ctc tcc tct 912
Ser Tyr Gly Gly Gln Tyr Arg Cys Tyr Gly Ala His Asn Leu Ser Ser
290 295 300

gag tgc tcg gcc ccc agc gac ccc ctg gac atc ctg atc aca gga cag 960
Glu Cys Ser Ala Pro Ser Asp Pro Leu Asp Ile Leu Ile Thr Gly Gln
305 310 315 320

atc cgt ggc aca ccc ttc atc tca gtg cag cca ggc ccc aca gtg gcc 1008
Ile Arg Gly Thr Pro Phe Ile Ser Val Gln Pro Gly Pro Thr Val Ala
325 330 335

tca gga gag aac gtg acc ctg ctg tgt cag tca tgg cgg cag ttc cac 1056
Ser Gly Glu Asn Val Thr Leu Leu Cys Gln Ser Trp Arg Gln Phe His
340 345 350

act ttc ctt ctg acc aag gcg gga gca gct gat gcc cca ctc cgt cta 1104
Thr Phe Leu Leu Thr Lys Ala Gly Ala Ala Asp Ala Pro Leu Arg Leu
355 360 365

aga tca ata cac gaa tat cct aag tac cag gct gaa ttc ccc atg agt 1152
Arg Ser Ile His Glu Tyr Pro Lys Tyr Gln Ala Glu Phe Pro Met Ser
370 375 380

cct gtg acc tca gcc cac gcg ggg acc tac agg tgc tac ggc tca ctc 1200
Pro Val Thr Ser Ala His Ala Gly Thr Tyr Arg Cys Tyr Gly Ser Leu

385	390	395	400
aac tcc gac ccc tac ctg ctg tct cac ccc agt gag ccc ctg gag ctc 1248			
Asn Ser Asp Pro Tyr Leu Leu Ser His Pro Ser Glu Pro Leu Glu Leu			
405	410	415	
gtg gtc tca gga ccc tcc atg ggt tcc agc ccc cca ccc acc ggt ccc 1296			
Val Val Ser Gly Pro Ser Met Gly Ser Ser Pro Pro Pro Thr Gly Pro			
420	425	430	
atc tcc aca cct ggc cct gag gac cag ccc ctc acc ccc act ggg tcg 1344			
Ile Ser Thr Pro Gly Pro Glu Asp Gln Pro Leu Thr Pro Thr Gly Ser			
435	440	445	
gat ccc caa agt ggt ctg gga agg cac ctg ggg gtt gtg atc ggc atc 1392			
Asp Pro Gln Ser Gly Leu Gly Arg His Leu Gly Val Val Ile Gly Ile			
450	455	460	
ttg gtg gcc gtc gtc cta ctg ctc ctc ctc ctc ctc ttc ctc 1440			
Leu Val Ala Val Val Leu Leu Leu Leu Leu Leu Leu Leu Phe Leu			
465	470	475	480
atc ctc cga cat cga cgt cag ggc aaa cac tgg aca tcg acc cag aga 1488			
Ile Leu Arg His Arg Arg Gln Gly Lys His Trp Thr Ser Thr Gln Arg			
485	490	495	
aag gct gat ttc caa cat cct gca ggg gct gtg ggg cca gag ccc aca 1536			
Lys Ala Asp Phe Gln His Pro Ala Gly Ala Val Gly Pro Glu Pro Thr			
500	505	510	
gac aga ggc ctg cag tgg agg tcc agc cca gct gcc gac gcc cag gaa 1584			
Asp Arg Gly Leu Gln Trp Arg Ser Ser Pro Ala Ala Asp Ala Gln Glu			
515	520	525	
gaa aac ctc tat gct gcc gtg aag gac aca cag cct gaa gat ggg gtg 1632			
Glu Asn Leu Tyr Ala Ala Val Lys Asp Thr Gln Pro Glu Asp Gly Val			
530	535	540	
gag atg gac act cgg gct gct gca tct gaa gcc ccc cag gat gtg acc 1680			
Glu Met Asp Thr Arg Ala Ala Ala Ser Glu Ala Pro Gln Asp Val Thr			
545	550	555	560
tac gcc cag ctg cac agc ttg acc ctc aga cgg aag gca act gag cct 1728			
Tyr Ala Gln Leu His Ser Leu Thr Leu Arg Arg Lys Ala Thr Glu Pro			
565	570	575	

cct cca tcc cag gaa agg gaa cct cca gct gag ccc agc atc tac gcc 1776
Pro Pro Ser Gln Glu Arg Glu Pro Pro Ala Glu Pro Ser Ile Tyr Ala
580 585 590

acc ctg gcc atc cac tag 1794
Thr Leu Ala Ile His
595

<210> 381

<211> 597

<212> PRT

<213> Human Immunoglobulin-Like Transcript

<400> 381

Met Thr Pro Ile Val Thr Val Leu Ile Cys Leu Gly Leu Ser Leu Gly
1 5 10 15

Pro Arg Thr Arg Val Gln Thr Gly Thr Ile Pro Lys Pro Thr Leu Trp
20 25 30

Ala Glu Pro Asp Ser Val Ile Thr Gln Gly Ser Pro Val Thr Leu Ser
35 40 45

Cys Gln Gly Ser Leu Glu Ala Gln Glu Tyr Arg Leu Tyr Arg Glu Lys
50 55 60

Lys Ser Ala Ser Trp Ile Thr Arg Ile Arg Pro Glu Leu Val Lys Asn
65 70 75 80

Gly Gln Phe His Ile Pro Ser Ile Thr Trp Glu His Thr Gly Arg Tyr
85 90 95

Gly Cys Gln Tyr Tyr Ser Arg Ala Arg Trp Ser Glu Leu Ser Asp Pro
100 105 110

Leu Val Leu Val Met Thr Gly Ala Tyr Pro Lys Pro Thr Leu Ser Ala
115 120 125

Gln Pro Ser Pro Val Val Thr Ser Gly Gly Arg Val Thr Leu Gln Cys
130 135 140

Glu Ser Gln Val Ala Phe Gly Gly Phe Ile Leu Cys Lys Glu Gly Glu
145 150 155 160

Asp Glu His Pro Gln Cys Leu Asn Ser Gln Pro His Ala Arg Gly Ser
165 170 175

Ser Arg Ala Ile Phe Ser Val Gly Pro Val Ser Pro Asn Arg Arg Trp
180 185 190

Ser His Arg Cys Tyr Gly Tyr Asp Leu Asn Ser Pro Tyr Val Trp Ser
195 200 205

Ser Pro Ser Asp Leu Leu Glu Leu Leu Val Pro Gly Val Ser Lys Lys
210 215 220

Pro Ser Leu Ser Val Gln Pro Gly Pro Val Met Ala Pro Gly Glu Ser
225 230 235 240

Leu Thr Leu Gln Cys Val Ser Asp Val Gly Tyr Asp Arg Phe Val Leu
245 250 255

Tyr Lys Glu Gly Glu Arg Asp Leu Arg Gln Leu Pro Gly Arg Gln Pro
260 265 270

Gln Ala Gly Leu Ser Gln Ala Asn Phe Thr Leu Gly Pro Val Ser Arg

275

280

285

Ser Tyr Gly Gly Gln Tyr Arg Cys Tyr Gly Ala His Asn Leu Ser Ser
290 295 300

Glu Cys Ser Ala Pro Ser Asp Pro Leu Asp Ile Leu Ile Thr Gly Gln
305 310 315 320

Ile Arg Gly Thr Pro Phe Ile Ser Val Gln Pro Gly Pro Thr Val Ala
325 330 335

Ser Gly Glu Asn Val Thr Leu Leu Cys Gln Ser Trp Arg Gln Phe His
340 345 350

Thr Phe Leu Leu Thr Lys Ala Gly Ala Ala Asp Ala Pro Leu Arg Leu
355 360 365

Arg Ser Ile His Glu Tyr Pro Lys Tyr Gln Ala Glu Phe Pro Met Ser
370 375 380

Pro Val Thr Ser Ala His Ala Gly Thr Tyr Arg Cys Tyr Gly Ser Leu
385 390 395 400

Asn Ser Asp Pro Tyr Leu Leu Ser His Pro Ser Glu Pro Leu Glu Leu
405 410 415

Val Val Ser Gly Pro Ser Met Gly Ser Ser Pro Pro Pro Thr Gly Pro
420 425 430

Ile Ser Thr Pro Gly Pro Glu Asp Gln Pro Leu Thr Pro Thr Gly Ser
435 440 445

Asp Pro Gln Ser Gly Leu Gly Arg His Leu Gly Val Val Ile Gly Ile
450 455 460

Leu Val Ala Val Val Leu Leu Leu Leu Leu Leu Leu Phe Leu
465 470 475 480

Ile Leu Arg His Arg Arg Gln Gly Lys His Trp Thr Ser Thr Gln Arg
485 490 495

Lys Ala Asp Phe Gln His Pro Ala Gly Ala Val Gly Pro Glu Pro Thr
500 505 510

Asp Arg Gly Leu Gln Trp Arg Ser Ser Pro Ala Ala Asp Ala Gln Glu
515 520 525

Glu Asn Leu Tyr Ala Ala Val Lys Asp Thr Gln Pro Glu Asp Gly Val
530 535 540

Glu Met Asp Thr Arg Ala Ala Ala Ser Glu Ala Pro Gln Asp Val Thr
545 550 555 560

Tyr Ala Gln Leu His Ser Leu Thr Leu Arg Arg Lys Ala Thr Glu Pro
565 570 575

Pro Pro Ser Gln Glu Arg Glu Pro Pro Ala Glu Pro Ser Ile Tyr Ala
580 585 590

Thr Leu Ala Ile His
595

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